Attitudes Towards Inclusive Education of Students with Disabilities in Vietnam

A Survey of Regular Lower Secondary School Teachers

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Abstract

For inclusion to be effective, it is generally agreed that regular teachers should be receptive to the principles and demands of inclusion. This study was to investigate attitudes of 561 Vietnamese regular teachers towards inclusive education (IE) of students with disabilities at 24 lower secondary inclusive project schools funded by INGOs across Vietnam. The study was carried out following quantitative approach based on a survey design using self-administered questionnaire as the sole instrument.

The results indicated that the lower secondary teachers had both positive and negative attitudes towards IE of students with disabilities. These attitudes varied when it comes to the issues of how they understood the general philosophy of inclusion and their perceived ability to teach students with disabilities. The finding suggested that teachers agreed with the positive benefits of inclusion for students with disabilities. However the similar benefits for the students without disabilities were likely to cause disagreement among them. There seemed to be a contradiction when the teachers perceived that they had sufficient training and necessary expertise to teach students with disabilities. Nevertheless, they still expressed the needs for extensive re-training for inclusion.

The inspections of possible influencing factors found that teachers' attitudes were stronger influenced by the student-related factors than by the teacher-related factors. The latter indicated that the teachers, who had experience with students with disabilities since the INGO projects started, had less positive attitudes than those with experience before the project time. As for the student-related factors, the finding showed the fewer students with disabilities in regular classrooms, the more positive attitudes of teachers. The differences in the attitudes towards IE were found between the teachers having students with certain kinds of disabilities and teachers without experiences with those students. The environment-related factors were also predictors of differences in teacher's attitudes to inclusion. The urban teachers tended to be more positive than those in the sub-urban and towns. The rural teachers were found to be the least positive towards inclusion. Across the country, the Southern teachers showed the most positive compared to their Central and Northern colleagues. Support evaluated by teachers was very low, which tended to affect teacher's attitudes. Most of the analysis recognised the important role played by teacher education, especially the in-service training programmes provided by the INGO projects in bringing about the difference in the teachers' attitudes towards IE as mentioned above.

It could be concluded that the teachers and their schools are at the changing phase to inclusive settings with focus on student-centred approach. Thus, it is not easy for them in such an early stage of IE implementation to avoid the culture and practice of the traditional whole-class teaching which serves the academic demands of the majority students without disabilities. The social outcomes of inclusion are perceived as the positive benefits only for students with disabilities. This exposes a requirement to teacher education programmes, which found to have an influence to teachers' attitudes in this study, to put greater emphasis to building a vision of inclusion that does not relate merely to the inclusion of students with disabilities but to promote higher education quality *for all students.*

Dedications

To my Mum and Dad, who allowed me to go out of our home,
not to get married as our tradition but to gain knowledge.
To my Grandparents, whose pride of me motivated me over the last two years.
To my younger brother, who I owed my apologies of not being with him
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Abbreviations

ATMS	Attitude Towards Mainstreaming Scale
IE	Inclusive education
INGOs	International Non-Governmental Organizations
GoV	The Government of Viet Nam
LS	Lower Secondary
LSE	Lower Secondary Education
MOET	The Ministry of Education and Training of Viet Nam
WHO	The World Health Organization
UNESCO	The United Nations Organization of Educational, Scientific and Cultural Organization

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Chapter 1: Research context

More than one decade has seen the educational sector's effort to bring changes to the life of Vietnamese children with disabilities in terms of education and social inclusion. What the current status is from the view of the change implementers? This study investigates the attitudes of regular teachers towards the inclusion of students with disabilities at lower secondary project schools in Vietnam. This chapter introduces all the contextual factors of my study. One of the foci is discussion of key concepts used in the research which I have attempt to place my clarifications in the way that they are mentioned for the first time in the writing.

1.1 Vietnam – an overview

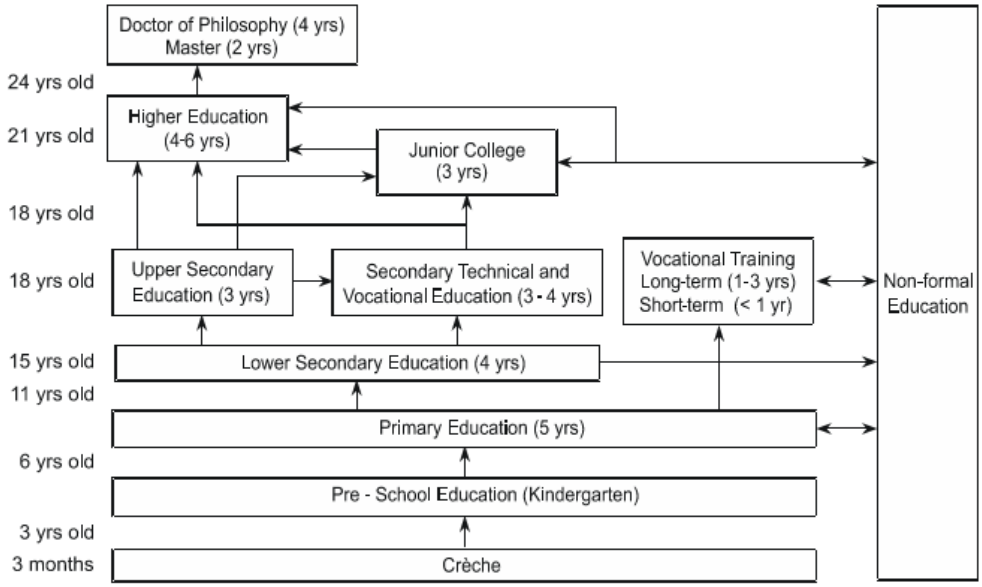
Vietnam is located at the centre of Southeast Asia possessing nearly 3,400 kilometers of coastline and a long internal border with Hanoi as the capital city. Vietnam's population as of 2007 was 85.195.000 and 73 % of the population live in rural areas (GSO 2007). Ethnically, Vietnam is home to 54 ethnic groups. The majority Kinh or Vietnamese form 86% of the population and reside in the lowlands and cities, while the highest concentrations of ethnic minorities are in the mountainous areas. Geographically, the country of Vietnam can be seen in three different parts: the Northern, the Central and the Southern regions with the total 61 provinces and cities.

The current research was carried out in six provinces and cities in all three regions of Vietnam with two provinces in each region. It is one of the study foci to investigate a possible discrepancy in attitudes of teachers towards inclusion in terms of regional difference.

1.2 Lower secondary education in Vietnam

Lower secondary education (LSE) is generally at a crossroad within the structure of educational system. For youth, it comes at a time of transition in life when important decisions and choices are to be made, which have far reaching impacts on personal life and future academic and career orientations (UNESCO).

Figure 1: The National Education System of Vietnam (MOET 2006)



In Vietnam, LSE level covers from Grades 6 to Grade 9 (Figure 1). Children from 11 to 13 years of age are eligible for enrolment to Grade 6. Children with disabilities age are eligible for LSE within a further two year age range (MOET 2007b). By 31st of December 2007, there were 6,152,040 LSE students out of 16.256.654 students in the general education system of Vietnam (GSO 2007).

Regarding LSE teachers, it is required that teachers should be holders of teacher training college degree after three years training. Graduates of other college degree are also accepted if having teacher education certificate (MOET 2007b).

New curricula and textbooks have been come into use at all four grades since 2005 as the result of LSE curriculum reform initiated in 1998. The main objectives of this reform was, inter alia, a renovation of teaching and learning with learner-centred approach as “the heart” method with the view to developing learning initiative and creativity (Tran 2005; Nguyen et al. 2001). The attempt to transform traditional “chalk talk” into learner-centred approach has created useful implications for inclusion of students with disabilities at LSE. Since new approaches better meet the student needs (Villa et al.2005).

Following the achievement of universalization of primary education, the Government of Vietnam (GoV) has set the LSE universalization as a priority. The National EFA

Action Plan 2003-2015 also identified LSE as one of four target groups with an objective to provide access to affordable, quality LSE for all children of LS school age (Government of Vietnam, 2003). To meet these commitments, all children including children with disabilities should be accommodated to access education.

1.3 Vietnamese students with disabilities

1.3.1 Students with disabilities vis-à-vis students with special needs

There were involved many thoughts to decide whether the term *students with special needs* or *students with disabilities* should be used in this study. In many countries, not all students who are identified as disabled are also identified as having special educational needs and vice versa. These two groups, therefore, are not identical (UNESCO 2001, 2004). In Salamanca Framework, "special educational needs" refers to all those children and youth whose needs rise from disabilities or learning difficulties (UNESCO 1994). According to UNESCO (1994), many children experience learning difficulties and thus have special educational needs at some time during their schooling. In another publication, UNESCO (2004) states students with special learning needs or special educational needs means children who require greater attention to help them with their learning.

Booth et al. (2006) proposed the concept "*barriers to play, learning and participation*" for difficulties that children and youth encounter instead of using "special educational needs". They argued that the former conferred a label that can lead to lowered expectations while their proposed concept helped practitioners to think differently about how educational difficulties arise (Booth et al. 2006). It deflects attention from the difficulties experienced by other children without the label, and from sources of difficulty that may occur in relationships, cultures, the nature of activities and resources, the way practitioners support learning and play, and the policies and organization of settings (Booth et al. 2006).

What Booth and his colleagues implied was in agreement with WHO's effort in the *International Classification of Functioning, Disability and Health –ICF* based on the *biopsychosocial* model. According to WHO (2001), a person's disability is conceived as a dynamic interaction between health conditions (diseases, disorders, injuries,

trauma, etc.) and contextual factors including personal and environmental factors. Environmental factors can be the facilitating or hindering impact of the physical, social and attitudinal world, which interact with all the component of disability and functioning (WHO, 2001).

It could be said that children with special needs and children with disabilities are not identical. From my personal view, children with disabilities are included in children with special needs. It is true when inclusion is for all children regardless of gender, physical, intellectual, social, emotional, linguistic, cultural, religious characteristics. These characteristic experienced by children due to traditions and cultures in different countries may rise special needs for them in education. In this case, the term "children with diverse background and abilities" proposed by UNESCO (2004) is found to be the most inclusive term. However, to put a term into use is not only the linguistic shift. It is the process of communicating the change in policy and practice accompanied with that term. Using term is also an issue of tradition. In this sense, I would like to agree with Booth et al. (2006) that general usage [of terms] *remains part of the culture and policy framework of many settings, and influences a variety of practices*. Consequently, "students with disabilities" was decided for use in this study because it is the working term in Vietnam related to the children in question.

1.3.2 Vietnamese students with disabilities

Vietnam has faced the challenge of obtaining comprehensive data regarding student with disabilities, which was considered as an influential factor concerning the delivery of services and programs for this group (Nguyen et al. 2006; Lancaster et al.2004; Nguyen 2002). This fact was reasoned partly on the variation in definitions of disabilities used (Nguyen et al. 2006; Lancaster et al. 2004).

The official definition regarding Vietnamese children with disabilities is documented in a law entitled the Ordinance on Disabled Persons which states "*Disabled children are those aged 0-18 who, irrespective of the causes of the disability, lack one or more body parts or functions reducing the capability of action and causing difficulties in work, life and study*". This definition was based on WHO' the International Classification of Impairments, Disabilities and Handicaps (ICIDH, 1980) which

conceptualized disability at three levels: impairment (at the organ level), disability (at individual level), and handicap (at the social level) (Lancaster et al.2004). Following this framework, Vietnamese definition is seemingly to see difficulties as individual problems and devoid of environment effect including social attitudes as identified by ICF. Acting as the legislative framework for practices in Vietnam, this definition may influence implementation of service including education of children with disabilities.

The latest data retrieved from the survey in 2005 showed that there were 3.47% (approximately 1 million) children with disabilities in the group of children from 0 – 16 years of age nationwide (Nguyen et al.2006). The group of children with intellectual difficulties was the largest group (28% in total of the children with disabilities population). In Vietnam, intellectual disabilities include mental retardation and learning difficulties (Nguyen et al. 2006, Lancaster et al.2004, Kane 1999). The second largest group was children with physical disabilities (19.25%). Children with visual impairment made up 13.73%. Three other groups of children with of disabilities were children with multi disabilities (12.62%), with language difficulties (12.57%) and children with hearing impairment12.43% (Nguyen et al, 2006).

Vietnamese children with intellectual difficulties had highest rate of enrolment. 3/4 of hearing impaired children and 1/3 of visual impaired children did not enroll in to any kind of education services. As explained by Nguyen et al. (2006), the reason why children with learning difficulties had higher rate of enrolment because their disabilities were not obvious by appearance vis- à- vis children without disabilities, while children with obvious impairments like multi disabled, visual impaired and seeing impaired children have less opportunity to access education.

The number of children with disabilities at LS school age was about 536,619 (43.02% of total children with disabilities). But there were only around 85.859 (16%) children of this group attending LS schools (MOET, 2007b). However, education was provided dependent on the good will of school as the result of empathy, but there was hardly any adaptation from the school and teachers' practices to meet the needs of

students with disabilities (Nguyen et al 2006; MOET 2004), which may influence the implementation of education delivery to students with disabilities.

1.4 Inclusive education in Vietnam

1.4.1 Concept of inclusive education

It is widely held that the meaning of inclusion is contended (Ainscow et al.2003). Ainscow (1996) argued that any definition of inclusion needs to make a clear distinction between inclusion and integration (Vislie 2003). The earlier distinction than those included mainstreaming. All three are descriptions of placement where children with disabilities learn together with their peers without disabilities. But the difference among them is seen in the way that a child with disability has to adjust to the mainstreaming/integration system and requirements. This is opposite to inclusive education where the school, and the classroom settings have to be adjusted so that the children with disabilities can engage actively in the school and class activities (Collective resources).

The major impetus for the IE approach was given by the World Conference on Special Needs Education in 1994 in Salamanca Spain with the view to further the objective of EFA when it was seen far from a reality. Thus, solution as confirmed at this Conference was developing a very different approach which saw learner's difference as normal and which tried to develop education systems which could respond effectively to learner's diversity (UNESCO, 2001).

Referring back to the contentiousness of inclusion, it might result from whether one sees inclusion in society and happening in society at large or in the unit of the society. Much of the attention in the development of inclusion to date has been focused on the school and, particularly, the classroom with the features of school and school practice (Ainscow et al. 2003).

The fundamental principle is that inclusive schools must recognize and respond to the diverse needs of their students, accommodating both different styles and rates of learning and ensuring quality education to all through appropriate curricula, organizational arrangements, teaching strategies, resource use and partnerships with

their communities. There should be a continuum of support and services to match the continuum of special needs encountered in every school (UNESCO 1994). The main practice of inclusion is a child-centred pedagogy capable of successfully educating all children, including those who have serious disadvantages and disabilities.

It could be seen that inclusion really required school to transform itself or in other words, it was really about practical changes (UNESCO 2004). To an educational system with long history of traditional way of teaching like in Vietnam, this change was more complex. To gain quite a full picture of this process of change, the model of complex change management with five factors including vision, skills, incentives, resources and action plan developed by Ambrose (1987) and then modified by Knoster, Thousand and Villa (1993, Thousand et al.2005) would be based on to reflect IE in Vietnam in this study, which will be discussed in the next chapter.

1.4.2 Inclusive education in Vietnam

IE is the national consideration which rooted from more than 10 year effort by Vietnamese Ministry of Education and Training (MOET). Contribution to which is the enthusiastic and strong commitment to the development of complete national law and policies to support the work. Villa et al. (2003) stated that Vietnam was the most inclusive, in terms of education of children and youth with disabilities among Asian countries. Upon promising achievements in IE, MOET has identified and affirmed that "*IE is the main orientation and the most appropriate approach to education of children with disabilities in Vietnam"* (Nguyen et al. 2006, p.110). However, the attention has been mainly paid to primary education then followed by pre-school level. Vietnam is not the exceptional case in the region. According to Magrab (2003), current strategies and programs have largely failed to meet the needs of adolescents who risk being marginalized or excluded. Programs for them tend to operate outside the mainstream and have focused on early childhood and primary education, often neglecting secondary education (Magrab, 2003).

The history of more than ten years of education for Vietnamese children with disabilities in regular schools can be seen in two stages of development: period before and period after the year 1995. The former experienced the development of

integrative education. In Vietnam, integration was perceived as the admission of children with disabilities in general education schools but in separated special education classes where they studied with the instructions from a separate curriculum different to what children in general classes were exposed to (Le 2000a). This period also saw the efforts to develop "a workable strategy for IE in Vietnam" as the result of cooperation with and in consultation with a foreign INGO and university (Le 2000a), which was inspired by the question whether there was any greater benefit for children with disabilities than integrative approach. As a consequence, IE was pilot tested in a small scale.

IE in Vietnam is defined as the principles and practice of education in which children with disabilities learn with children without disabilities in the neighbouring school (Nguyen et al 2006, CRS 2007). Vislie (2003), Booth et al (2002) stressed that inclusion must start from a recognition of the differences between students upon which teaching and learning or classroom procedures are adjusted to the student's learning. Reflecting on their arguments, the above definition seems incomplete since it lacks the emphasis on the aspects of the school and class adjustments.

1.4.3 Law and policy support

Viet Nam has supportive national legislation and constitutional changes in relation to education for students with disabilities (Villa et al. 2003).

The Constitution of Vietnam, the Ordinance on Disabled Persons 1998, the Law on Education revised in 2005, the National EFA Action Plan 2003-2015 all regulated the State's responsibilities for creating favourable conditions for people including children with disabilities to access education and vocational training. The Law on Education goes further in the issue of creating State's supporting system for State owned schools with students with disabilities in terms of physical, human, and financial resource (National Assembly of Vietnam 2005). However, it was found that none of these legal documents specified inclusion education, either integration or special education as the delivery of education for children with disabilities.

In terms of policies, the Government's Strategies for Educational Development 2001 -2010 planned to provide access to educational settings of any kind including special,

semi-inclusive and inclusive schools for 50-70% of disabled children by 2005 and 2010 respectively (MOET, 2002). It was found that the Master Program of Secondary Education Development was likely the rare effort, at the time of the writing of this thesis, to take IE of students with disabilities into prioritized consideration by the policy makers. These efforts show the GoV's commitments to reinforce IE at further educational levels. However, the dedication to do so up to now was only made by supporting INGOs.

It could be concluded this part that the mention of inclusive education for Vietnamese children with disabilities is too general legislation, policies, and strategies and hinders structural implementation (Lancaster et al.2004).

1.5 INGOs in Inclusive education in Vietnam

International Non-Governmental Organizations (INGOs) have been active in Viet Nam since the mid 1950 (Perchuck 2008). Up to 2006, 20% of total value of INGO support was spent for education including basic education, IE, teacher training, vocational training, foreign language training (COMINGO 2007). Radda Barnen – a Swedish INGO was known as the first organization to initiate IE in Vietnam since early 1990 in collaboration with the Vietnamese Centre for Special Education (Le 2000a). Since then more and more INGOs have joined force to create pilot IE models in different areas of Vietnam (Villa et al 2003).

Most of the provinces participating in the current study have been the traditional localities of getting assistance from INGOs (COMINGO 2007). It should be noted that not all INGOs working on the same direction but different approach and strategy within time frame and financial framework. For instance, some projects supported by INGOs focus on the inclusion of children with a specific disabilities (e.g., students with hearing impairment, or visual impairment), the others focus on the inclusion of all children, including children with severe disabilities (Villa et al 2003). As the receivers of support, the locality especially the traditional localities are influenced or confused by different approaches to delivery education for children with disabilities at different time with different INGOs. It might be worse when there are different

INGOs working in the same provinces with the same target group- children with disabilities but with contradictory strategy of education delivery for them with no cooperation. According to Le (2000a), this is an obstacle to further development of IE. As Villa et al. observed "the establishment of IE opportunities in Vietnam has been greatly dependent on other countries and their INGOs" (2003, p.28). In combination with other problems as mentioned, these issues exposed a challenge to the ownership of the process of change to inclusion. As Margaret Wheatley (1994) articulated "*I no longer believe that [school] organization can be changed by imposing a model developed elsewhere…There is no recipes or formulate, no checklists or advice that describe "reality". There is only what we create through our engagement with others and with events (Thousand et al.2005, p7).*

1.6 Statement of the research problem

1.6.1 Problem statement

Knowledge of attitudes of persons without disabilities towards persons with disabilities helps us to understand nature of interaction between the two groups (Antonak et al. 2000).

In education, for inclusion to be effective, it is generally agreed that the school personnel who will be most responsible for its success that is, regular teachers should be receptive to the principles and demands of inclusion. Professional attitudes may well act to facilitate or constrain the implementation of IE (UNESCO, 1994, WHO 2002). The major initial step towards an inclusive school is to assess attitudes of stakeholders of which attitudes of teachers and administrators is the first characteristic largely evident to a high likelihood of becoming a truly inclusive learning environment (Avramidis et al. 2000, Smith 1998).

Going inline with Smith, Puri et al. (2004) also identified four strategies of removing barriers to IE. One of which is removing the barriers of attitudes developed due to lack of awareness. They also added that providing awareness, sensitivity and solutions for teachers is one way of removing the barriers of the teaching system.

Thus, one of the objectives of the research is to investigate what's the awareness and belief of regular teachers about IE.

As mentioned earlier, it can be said that IE at lower secondary education is the new emphasis in the agenda of Vietnamese educational sector and up to the time of this research proposal development, there is no obvious evidence that research have been done in the field of IE at lower education level in general and attitudes of lower secondary school teachers towards this subject matter in particular.

However, there are some research found in Vietnam concerning IE of children with disabilities and also the issue of teachers' attitudes as the latest survey on the current status of education for children with disabilities (not specifically which level of education) in 8 representative socio-economic regions in Vietnam by the National Institute of Education Strategy and Curriculum in March 2005. The findings revealed that there was quite a majority number of regular teachers (51.5%) stating that children with disabilities should receive care and education at the special education institutions while only 31.6% teachers had the opinions that children with disabilities should be educated in regular schools so that they have better chance to develop and to be included in the communities. (Nguyen et al. 2006, p.110). The research concluded that the teachers had limited awareness of education for children with disabilities. However, this research did not mention which factors influenced the teachers' opinion. Also, there is no specific information relating to LSE level in the above mentioned research.

On identifying the barriers to Vietnamese students with disabilities' lower secondary education access and equity, inter alias, traditional teaching practices, low expectations for students with disabilities, rigid assessment procedures and an emphasis on the role of special schools for disabled children are pointed out by MOET (MOET, 2006). The ultimate result can be that the inclusion of students with disabilities in regular classes is considered an act of altruism on the part of the school and an object of pity in the eyes of the teachers (Nguyen, D.Minh, et al. 2006) instead of the schooling system meeting its obligations as defined by government policy and national law.

1.6.2 Research question

It was against this context, attempts were made to gain more in-depth investigation of the regular teachers' attitudes towards inclusion of students with disabilities in lower-secondary schools. To do so, the current study tried to answer the following research question:

What attitudes do regular Vietnamese teachers possess in relation to including students with disabilities in lower secondary classes?

1.7 Significance of the study

It was expected that the findings of the current study would help:

- To provide an overview of regular lower secondary teachers' attitudes of inclusion of students with disabilities;
- To provide a pattern of possible factors influencing their attitudes;
- To serve as the reference for sensitizing programs for regular teachers.
- To sensitize policy makers and training course developers on the role played by teacher's attitudes and the causal factors in the policy development, implementation and reinforcement.

1.8 Limitations

From the time of the survey carried out in the fields to the time of this writing, there has been no evidence of any research on the topic of inclusion of students with disabilities at lower secondary education level in Vietnam while most of the literature found on IE at primary school level. Inclusion has just been developed at some districts through the efforts of INGOs could be the explanations for this lack of literature. Thus, any conclusion made based on the results of this research could be subjective and foreign-oriented when the research question was developed based on external literature and concept. However, it is expected to be open to question and future research.

1.9 Overview of the thesis

The current thesis consists of five chapters. Each of them will be the basis of presenting and discussing the specific contents constructing the research problem.

Chapter 1 introduces the context of the research: Vietnam and its structures relating to the subject matter: IE of students with disabilities. General information relating to the research is also introduced together with the key concepts used in the research. Chapter 2 describes theoretical foci of this study, which is developed basing on two background i.e., previous related research (literature review) and theories. Chapter 3 is the floor for describing the "backbone" of study - research methods with details of data collection and introduction of statistical procedures. Chapter 4 deals with presenting the results of statistical procedures then followed by discussion of the results. Chapter 5 which is the last chapter concludes the thesis with main findings of the research together with reflections and implications for practices and future studies.

1.10 A note on terms

There were three groups of respondents in this study, i.e., school administrators, class head teachers, subject teachers. However, "Teachers" will be mostly used, when there is no specification, to represent the individuals of all three groups.

"School administrator" refers to all personnel in the positions of head teacher/principal and deputy head/vice principal. "Subject teacher" is teacher who teaches the subject of his/her qualification. Each LSE grade (from Grade 6 to 9) comprises of 12 subjects in average "Head teacher" or "Class head teacher" refers to a teacher who is a subject teacher and at the same time an administrative coordinator who is responsible for students' school life (in this regard, she/he is responsible only one class).

2. Chapter 2: Theoretical focus and Literature Review

2.1 Theoretical focus

2.1.1 Attitudes

The world research on special needs education shared the assumptions that teachers' attitudes may act to facilitate or constrain the implementation of inclusion. Investigation of attitudes towards people with disabilities has concerned researchers since early 1930 (Antonak 1988). It is not easy for scholars to have consensus on a definition of attitudes (Krosnick et al, 2005) or when defined, it has come in myriad ways (Fabrigar et al, 2005). Concerning the aim of the current study, a kind of positive- or -negative - evaluation based definition seemed applicable. One of those was the definition constructed by Eagly and Chaiken going:

> "*Attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor"* (1993, p1).

According to Eagly et al. (1993), this psychological tendency can be regarded as a type of bias that predisposes an individual towards evaluative responses that are positive and negative and these evaluative responses are developed on the basis of cognition, affect, and (overt) behaviours. As they defined, cognitive category contains thoughts or ideas that people have about the attitude object. These thoughts are often conceptualized as beliefs. Affective category consists of feelings, emotions, moods and sympathetic nervous system activity that people experience in relation to the attitude object. And behavioural category encompasses people's overt actions with respect to the attitude object. It also can be regarded as intentions to act that are not necessarily expressed in overt behaviour (Eagly et al.1993).

However, there are other scholars not in agreement with such classifications of attitudes. They argue that affects, cognitions, and behaviours are seen as interacting with attitude rather than being its parts (Albarracin et al., 2005). They see attitudes and those three construct in a mutual relation in the way that attitudes can both be inferred from and have an influence on beliefs, affect and overt behaviour (Albarracin

et al., 2005). For the current study, looking at attitude in its reciprocity would be justifiable due to the following reasons.

Three attitude variables: affect, cognition, and behaviour constructed by Eagly et al. (1993) were seen to provide in-depth patterns of an attitude, because each of these individual constructs are central to the dynamic forces that form and transform existing attitudes (Albarracin et al.2005). Specifically, in the current study, they helped to reveal whether there would be any difference in the influence created by one of these dimensions to teachers' positive or negative attitudes towards inclusion of students with disabilities in their classrooms. Also, which factors were more crucial than the others. These evaluations should be useful in predicting the teachers' total attitudes as Fabrigar et al. (2005) implied, an overall attitude towards an attitudinal object might be influenced by evaluations of many specific attributes of the object or emotions associated with the object and vice versa, in predicting affects, beliefs, and behaviours from the total attitude (Albarracin et al, 2005).

2.1.2 Understanding change towards inclusive education

UNESCO (2004) affirmed that inclusion is really about practical change. To describe the features of educational change, Dalin (1976) provided the term "*multi-dimensionality*" concerning ways to understand change. According to Dalin (1976), a number of theories and hypotheses from disciplines such as economics, anthropology, sociology, psychology, administrative and organizational science and pedagogic are important in understanding many dimensions of process of change.

IE is multi-dimensional and a process per se. As discussed earlier, IE approach is justified by a wider change in the way of understanding disability, i.e., a shift from medical model to social model of learning difficulties. UNESCO (2002) stated that in practical terms, IE is another way of thinking about special needs education. According to Flem et al (2005), it is important to look at special needs education as a social and cultural phenomenon. Cultural factors are the knowledge traditions, values and attitudes in society. In case there are difficulties experienced by children with disabilities, the causes might be the cultural expectations (Flem at al.2005).

By saying this, I would like to argue for my multi-dimensionally theoretical background of the current study. Specifically, regular teachers' attitudes would be reflected theoretically in the light of theories of educational change by different theorists, which will be presented and discussed in what follows.

2.1.3 Theories of educational change

Change in education is seen as the means of school improvement as defined by School Improvement Researchers that:

> *"a strategy for educational change…(which) is about raising student achievement through focusing on the teaching-learning process and the conditions which support it and strategies for improving the school's capacity for providing quality education in times of change"* (Hopkins 1994, cited in Dalin1998, p.97).

This definition is relevant to the ultimate goal of inclusive schools which should be capable of providing quality education to all children as stated in the Salamanca Declaration. The teaching – learning process in IE in accordance with Salamanca Guideline was based on child-centered pedagogy (UNESCO1994).

IE in Vietnam is a centralized initiative. Decision for IE implementation is normally made by the national or sub-national education authorities and then was imposed to school for implementation. However, many scholars of educational change especially Dalin, Miles and Fullan stated that adopting new practices assigned centrally or externally is not as important as implementation phase, which needs more concerns. Dalin (1976) stressed that problem is to happen in implementation or post-adoption behaviour. Consequently, Fullan (1998) defined implementation as changes.

Why implementation is problematic? One reason should be because change is externally initiated, which make school, and individuals within it become the victims of change (Dalin 1998). As a result, attempt to renew school fail (Dalin et al.1993). A better approach to change process as defined by Dalin et al. (1993) is *mutual adaptation and development.* Change is mutual interdependency of internal and external forces. It can occur as the result of pressure from external demand. However, it must operate in tandem with the real internal needs. Thus, in line with the school

improvement definition above, IE when externally initiated by educational authorities can be seen as stimulus and the school and its personnel then direct it to their own professional initiative. Changes which are necessary to contribute to the success of inclusive schools, as guided by Salamanca Framework should be found in all aspects of schooling: curriculum, buildings, school organization, pedagogy, assessment, staffing, school ethos and extra-curricular activities (UNESCO, 1994).

Change, or school improvement, or implementation, is the process with the ultimate vision of finding ways to enhance students' outcomes through specific changes in teaching approaches and the curriculum, and through strengthening the schools' organizational ability to support the work of teachers. Change happens right in classroom processes where teachers and students are the key change agents of this process. Even in a country based on a centralized approach such as Vietnam where schools are considered objects in the process by external authorities to alter everyday school life, teachers are primarily consumers whose job is to use innovation so that it leads to innovative and improved practice (Dalin 1998). This is learnt from most of the studies about school development that even strong centralized reforms depend completely on keeping in close touch with the grassroots (Dalin 1998).

2.1.4 Change and its relation to attitudes towards inclusion

Dalin (1979) answered the question "who has to change" by claiming that there was no significant change without changes in attitudes or behaviour. It can be reflected from Dalin's point that in the context of changing school to welcoming students with disabilities, school administrators and teachers should have to start with attitudes. According to ICF (WHO, 2001), attitudes of school administrators and teachers, who are in positions of authority, would create hindrances or facilitators for students with disabilities depending on their negative or positive attitudes respectively.

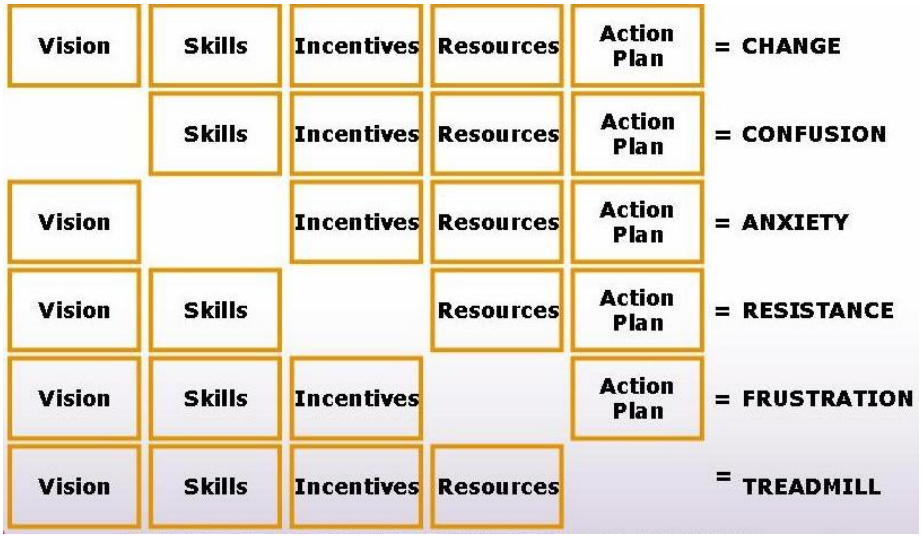
In reality, no change can happen in a vacuum, especially such complex change with different dimensions like attitudes as described earlier. Regular teachers can hardly possess an informed attitude about IE of students with disabilities if they do not have practical experience of implementation, which Dalin (1979) called *a post-adoption*

behaviour as above mentioned. According to Antonak et al. (2000) attitudes towards persons with disabilities are acquired through experience. Based on these theoretical views, it was regular teachers and school administrators with experience with students with disabilities that should be chosen for this study to evaluate their attitudes about their inclusion work they were implementing.

2.1.5 Model of managing complex change

Given what have been discussed, it could be said that the "red" thread of educational change is implementation phase to make change happen as desired, and there are a number of issues with important roles in this process. The Model for Managing Complex Change with five dimensions *vision, skills, incentives, resources and action planning* which was developed by Delorese Ambrose (1987) and then modified to introduce to inclusive schools by Knoster, Thousand and Villa (1993) (Thousand et al.2005) is chosen for the theoretical focus of this study.

Figure 2: Model of managing complex change



According to Villa et al. (2003), these five elements must be addressed for any complex change to occur. If any one of them is unattended, the result is something other than the desired change (Thousand et al 2005). As the Figure 1 shows, in case one of these elements are missing, involved personnel in change process will experience confusion (without vision), anxiety (without skills), resistance (without incentives), frustration (without resources), or treadmill (without action plan). Other scholars on educational change also identify what needed for change. Both Miles and

Fullan agreed with Ambrose about the factors like vision building, mastery, resources, and assistance (Dalin 1998), although they put these variables in such different terms. However, Ambrose's Model for managing complex change is found very handy for identifying problems in change process. Villa et al. (2003) claimed that this model appears to have generic, international application for promoting inclusive education.

Discussing the development of IE in Vietnam, Villa et al. (2003) found that five variables of Ambrose's model shed light on what has and can be done in Vietnam to keep the systems change toward IE as an ethic and practice. Analyzing teachers' attitudes according to those five dimensions helped to shape a picture of what IE was viewed from the point of its change agent. These five variables deserve brief descriptions in the following section. For the purpose of this study, I added "knowledge" to variable "skills" with the justification that these two issues are gained in tandem by teachers as the results of training.

(a) Vision

Thousand et al (2005) called building vision as visionizing to stress an "action" which suggested the active mental struggle that people go through when they reconceptualize their beliefs and declare public ownership or a new view. Thousand and Villa defined visioning

> *…involves creating and communicating a compelling picture of a desired future state and inducing others to commit to that future (2005, p.59).*

According to Thousand et al (2005), the vision of IE that should be created and communicated is (1) all children are capable of learning, (2) all children have a right to an education with their peers in their community's schools, and (3) the school system is responsible for attempting to address the unique needs of all children in the community.

Visioning required to foster widespread understanding and consensus about this vision. Without it, the result may be confusion by some or many in the school and greater community (Thousand et al. 2005).

Every individual involved in the IE of students with disabilities has their own rationale for their priority concern (Thousand et al.2005), which Fullan (1993) called the moral purpose. Visionizing is about replacing an old culture with knowledge of the rationales that are most compelling to everyone affected by a shift to inclusive schooling (teachers, parents, students, school board) (Thousand et al 2005) and then building a consensus shared by each individual.

A quite centralized approach of working in Vietnam is likely to create a "waiting mood" from implementing level for a vision to be developed and imparted. According to Thousand et al. (2005), anyone can be a visionizer, who intuitively know that change is a very personal process. And Vietnamese culture and society already provide a favourable context for a vision of inclusion education (Villa et al. 2003). In combination with the Government's commitments to international agreements like EFA, Salamanca Declaration, Children Right Treaty, they all have provided the background for a vision of IE.

In this study, the vision developed by school administrators and regular teachers after joining the change process to inclusion would be examined by themselves basing on the general understanding of inclusion philosophy (one subscale of the attitude scale), which is also the cognitive component constructing their attitudes towards inclusion.

(b) Knowledge and Skills

> *Unless educators believe they have the skills to respond to students' needs, a likely outcome will be anxiety because they doubt they are good teachers (Thousand et al, 2005, p.63).*

Meaningful education change is dependent on training and requires teachers and school administrators to learn. This results in what Miles, Dalin, Senge called *personal mastery* (Dalin et al 1993). Training is needed for building a consensus on a vision of IE since it helps to develop understanding of theoretical and ethical rationales for IE. This strategy is often used by IE projects funded by INGOs in Vietnam as the first step to developing inclusion in which stakeholders of education of students with disabilities were invited for training on the general philosophy of

inclusion. This is training for knowledge. Training for skills focuses on developing understanding about "know-how". When the involved individuals perceive that they have competence in new practice, they will develop a sense of ownership of the process of change (Dalin et al. 1993). Dalin states that a sense of ownership is the minimum condition for change (1993, p.13). As mentioned in the first chapter (1.6), obtaining a sense of ownership is a challenge for Vietnamese inclusive schooling development due to the great dependence on INGOs.

How teachers in this study evaluate their skills for inclusion will be examined through analysis of sub-scale of the questionnaire namely "perceived ability to teach students with disabilities".

(c) Incentives

Without incentives that are meaningful to each person affected by the change, the outcome may be passive or active resistance rather than excited engagement despite a vision of change, skillful personnel, abundant resources, and an action plan set into motion (Thousand et al, 2005).

According to Thousand et al. (2005) incentives can be understood as the ways to motivate people, to inspire enthusiasm, devotion, and intense regard for the vision and honor of the group. There are two kinds of incentives: extrinsic and intrinsic incentives. The former includes honors, financial, awards, which may be heavily relied on in a change formula (Thousand et al.2005). This is a traditional management theory basing on the principle which Sergiovanni (1990) called "*what gets rewarded gets done"* (Thousand et al. 2005). Resistance as Ambrose identified happens when rewards can be no longer be provided. Sergiovanni (1990) argued that there is a better strategy upon which to base the efforts is "*what is rewarding gets done*" (Thousand et al. 2005). That is intrinsic incentive which Thousand and Villa described as the recognition of one's increased effectiveness by (1) student development and happiness, (2) pride in one's professional risk taking and growth and the accompanying recognition from respected colleagues and students, (3) personal satisfaction, or (4) the enjoyable experience as the result of involving in an activity

(2005, p.67). It could be implied from this definition that change to an inclusive school to be successful are greatly dependent on the availability of intrinsic motivations. Since IE aims at providing quality education for better development of all children (UNESCO 1994). To this point, it could be said that intrinsic incentives can be considered as what Fullan (1993) called *moral imperatives* of teaching. He stated that managing moral purpose is at the heart of productive educational change (1993, p.8). Again, it should be reminded that change to be successful must be initiated by internally real need of the "client system" (Dalin 1993). In this sense, creating intrinsic incentives should start with listening to teacher' needs and concerns about change. Many change theorist suggest that incentives can be a powerful catalyst, but equally, other study of change suggest that, once the incentives cease, so too does the change (Shortland-Jones et al.2001).

However, incentives are individually different, what is rewarding to one person may be of little significance to another (Thousand et al. 2005). The most important thing is that those involved are asked them what they value as an incentive. Yet one incentive that is common and highly valued by everyone engaged in reform, according to Thousand et al. (2005), it is time - time for shared reflection and planning with colleagues. According to them genuine and sustainable changes in culture and dedication to inclusive schooling depend on people who become motivated by their emotions, values, beliefs, and social bonds with colleagues rather than by outside forces (Thousand et al. 2005).

(d) Resources

A school system may comprise people who have a common vision, skills, incentives, and a sensible plan of action for change. But without resources to do the job, they will likely experience frustration (Thousand et al.2005).

In reality, it is easy to confuse incentives with resources (Villa et al.2003). From my point of view, incentive is the tool to motivate involved people to move to destination of change. And resource is to enable them to reach that destination. I see incentive nonphysical that includes only intrinsic motivation while resource is physical. Thus, extrinsic motivation to my understanding is prone to resource.

Thousand et al (2005) identified three types of resources needed in education. They are material including technical resource (e.g., papers, curriculum materials, computer hardware and software), organizational resource (e.g., timetable, labor division) and human resource (relationship among colleagues, needs of trained educators, special education personnel, and support from community).

In this study, data relating to both incentive and resource was requested from the respondents despite not with thorough effort. Incentive was prone to extrinsic (administrative support) rather than intrinsic and resource focused on material and human resources (special need education teachers and participation of parents).

(e) Action plan

> *"Individuals within a system may have the vision, skills, incentives, and resources for change. Without coordinated planning for action, however, the experience may be like running on a treadmill, expending energy getting nowhere"* (Thousand et al.2005, p.74).

Villa et al. (2003) pointed out that there does need to be a systematic plan that ensures that other four elements of complex change are considered and addressed in light of what has worked and what has been learnt through the actual experience of promoting the vision and practice of IE. Following these assumptions, Thousand et al. (2005) provided principles of systematic planning. Firstly, carefully examining both internal existing resources, and strengths as well as weaknesses of the school system, and external factors (social, political, cultural, and economic trends). Dalin (1993) explained that the pressures for change coming from external environment as well as from the school themselves. Thus, schools need to cope with demands of both trends in a creative development process. Participatory based action planning is the second principle. Engaging stakeholders of change is important in developing ownership for coming changes and helps them to believe that the change really will occur. Monitoring the change, revisiting the vision and finally putting an action plan into a written format with who will do what by when and to what criterion are the other important principles that need to take into consideration for action planning.

To guarantee the presence of each of the five variables not to be missed on the process of complex change, there is a need for teacher education. It is training to understand the moral rationale of IE necessary for vision building, to gain knowledge about students with difficulties and technical skills in instruction and assessment. Learning from one another as a team of teaching staff merges incentives and resources. Learning from positive past experience guides the continuum of change as a part of action planning. It is to imply that a school that undergoes a change process is a learning school. Dalin (1993) states that the best way students can learn how to live in the future is to experience the life of a "learning school" and that is where the needs of students can be better responded. Given such theoretical background, one of the focuses of the current study is teacher training and its relation to teachers' attitudes. Production of these efforts will be presented in chapter 4.

2.2 Review of related literature

2.2.1 Pictures of teachers' attitudes towards inclusion

UNESCO (2000) when describing inclusion in practice mentioned that research findings are still somewhat controversial, one can find results for and against- which they called it "voice of reality". Each research focuses on one or more issues of one or more than one countries. However, each country is a special case, and the findings based on one ore more countries may not be directly applicable worldwide (UNESCO 2000).

Many teachers do not fully agree and believe that inclusion works. According to UNESCO survey (1985), teachers who favor the education of all children in ordinary classes were from the countries have laws requiring this (UNESCO 2000). Teachers' positive attitudes towards inclusion depended strongly on their teachers education, experience with students having special educational needs, class size, work load, and the availability of support (Opdal et al.2001, UNESCO 2000, Avramidis et al. 2000). On the contrary, opponents are the one concerned with the lack of training, personnel and administrative support and the uncertainty of academic and social gains through adopting such models (Whitaker 2004).

Teachers are more and more positive or optimistic about inclusion of students with disabilities (Avramidis et al 2000). However, the actual implementation of inclusion in classrooms confuses and worries teachers (Bradshaw et al, 2006, Avramidis et al 2000). For example, meeting the IEP requirements of students with disabilities was found the factors to produce a lack of confidence of teachers (Avramidis et al.2000). However, from the methodological point of view, Bradshaw et a. (2006) claim that respondents of attitude survey tended to express politically correct and socially desirable answers. As a consequence, teachers may express acceptance but not be willing to make the adaptations and modifications necessary for successful inclusion.

Attitudes of regular school teachers' vis-à-vis of special school teachers

Previous research focused on investigating the attitudes towards inclusion of students with disabilities of both regular education teachers and special education teachers. Common findings were that the latter are more optimistic or positive in their attitudes towards inclusion than their counterparts (Elhoweris et al. 2006; Cochran 1998; Befring 1997). Lacking in-service training to increase their skills is often found to cause the different between attitudes of two groups (Befring 1997, Sharma, 1999). According to Sharma (1999), regular school teachers believe that students with disabilities require special needs which cannot be provided in regular classroom.

Teachers' attitudes at different school levels

Many previous efforts were made to compare the attitudes of teachers towards inclusion at different school levels. The popular research was with the focus on comparing teachers of primary/elementary schools with teachers of secondary school level. Secondary teachers appear less accepting of education for students with disabilities in regular schools than elementary or primary school teachers (Larrivee et al. 1979; Cochran 1998; Smith 2000). One explanation given by Smith (2000) is the massive amount of materials secondary teachers are required to cover in the 50 to 60 minute class periods.

Some researchers did not divide clearly school levels, but grade levels instead. In the same sense with the discussion above, grade level taught was found to have a fairly

strong relationship to teachers' attitudes. Specifically, the attitude became increasingly less positive with ascending grade level (Larrivee et al, 1982; Opdal et al.2001). Opdal et al (2001) reasoned that the teachers may believe it easier to undertake the differentiation of curriculum and teaching methods, as well as classroom management in lower grades. However, in contrary, Kadell et al (2001) found no significant difference because both groups felt that training is insufficient and therefore their ability to teach these students is lacking.

When comparing the attitudes of teachers at different school levels towards mainstreaming, Larrivee et al. (1979) found that the greatest discrepancy to be between kindergarten and junior high school teacher attitude, with the former having a far more positive overall attitude than the latter. Consequently, they concluded that more attention was required to the affective dimension of the secondary teachers. This was a prerequisite to skill development. While the opposite was the priority for the elementary school teachers, who were positively disposed toward the philosophy of mainstreaming (Larrivee et al. 1979)

In contrast, there is another inspection that teachers of lower educational school levels are less positive than teachers of secondary school level. Hasting et al. (2003) reasoned that at lower level, children interact most of the time with only one or at least two teachers, so teachers' attitudes are more negative while secondary teacher depending on their role as the head teachers or subject teachers, and on the importance of the subjects they teach would decide how much time they work directly with students with disabilities.

Research focused on secondary school teachers provided two contrasting findings: favorable or supportive and vice versa. The representation of latter group was found among Hong Kong teachers (Yuen et al, 2001). Secondary school teachers including students with special educational needs demand extra time, resources, personnel and co- operation between subject departments in schools (Avramidis et al 2000).

2.2.2 Influential factors of teacher's attitudes.

There are a number of factors influencing attitudes of teachers and other closed stakeholders towards inclusion. After a review of the literature on teachers' attitudes towards integration/inclusion, Avramidis et al (2002) summarize three groups of variables influencing teachers' attitudes. They are child-related variables, teacher-related variables and educational environment-related variables, which are, in many ways, interrelated. Other sources suggested specific factors like class size, inadequate resources, the extent to which all students would benefit from inclusion, and a lack of adequate teacher preparation.

Attitudes towards inclusion or integration were strongly influenced by nature of disabilities and educational problems being presented, or both, and to a lesser extent, by professional background of respondents (Opdal et al. 2001, Avramidis et al.2002). Of those regarding teacher-related factors, teachers' experience with people with disabilities; and teachers' beliefs about the power of teaching can influence their attitudes (Opdal et al, 2001). School factors such as support services, climate, teacher collaboration and some factors external to the school such as wages are also identified to influence on teachers' opinions about IE (Opdal et al. 2001, Avramidis et al.2002).

2.2.2.1. Student-related factors

Research stated that the degree of the disabilities affected teachers' attitudes towards having students with disabilities included in their classroom. The milder the disabilities, the more willing teachers are to include them in their classrooms and vice versa (Opdal et al. 2001; Yuen et al.2001; Smith, *2000;* Avramidis et al. *2000;* Lanier et al 1996). In contrast, the finding of Avrimidis et al. (2000) revealed that educating students with significant disabilities in mainstream classrooms results in positive changes in educators' attitudes. This assumes that such practice occurs "after the teachers have gained mastery of the professional expertise needed to implement inclusive program" (Avrimidis et al 2000, p.207).

Other researchers focused on specific types of disabilities for comparing to find out the differences. This effort has been made by Avramidis et al (2000) to investigate the affective component of teachers' attitudes relation to the placement of a child with assigned disability in a mainstream classroom. The finding reveals that teachers show more concern and stress with the pupils with emotional and behavioural difficulties than with pupils with other types of special educational needs (Avramidis et al 2000).

Opdal et al (2001) found that exposure to and experience with students with certain disabilities had an influence on teacher attitudes, for instance, teachers with students with visual impairment, with speech and language impairment, or with hearing impairment were more positive towards inclusion than those teachers who did not teach students with these respective disabilities. However, all the participants were negative towards inclusion of students with learning difficulties including intellectual disabilities (Opdal et al. 2001).

2.2.2.2. Teacher - related factors.

(a) Experience working with students with disabilities

Teaching experience with students with disabilities influenced teacher's opinions about inclusion (Opdal et al.2001). Also in their study, Opdal et al (2001) found that teachers with experience of teaching students with mobility and other physical disabilities were the most supportive of the idea of inclusion. The more contact teachers have with students the more positive. They are towards their inclusion, which could be represented by the number of subjects that each teacher teaches. Opdal et al (2001) found out that teachers who taught three or more subjects were slightly more positive than the teachers who taught one or two subjects.

(b) Teacher training

Appropriate teacher education was the predictor of successful inclusive education (Lanier et al 1996). Avramidis et al (2000) found that regardless of any form of professional development as with school-based in-service or pre-service training it was teachers with substantial training in special education held higher positive

attitudes than those with little or no training about inclusion. The research finding reveals that teachers received university based professional development showed highest mean scores in all three components of attitudes, i.e. cognition, affection and conation. Additionally, this group of teachers also demonstrated more confidence in meeting the IEP requirements of students with special needs. Lanier et al (1996) pointed out following adequate introductory education, the teacher viewed inclusion of students with disabilities possible with the passage of time and experience.

Some other researchers (e.g. Kadell et al 2001) presupposed and hypothesized that attitudes will not differ between and among groups of teachers dealing with students with disabilities because of increased education, training, and experience on the subject. Interestingly, their findings approved the null hypothesis. However, the "no difference" found between the groups compared was due to the similar factor mentioned earlier, i.e. they agreed with each other about their lack of training and ability to teach students with disabilities (Kadell et al 2001).

The effect of training to generating positive attitude was seen with both groups of pre-service and in-service teachers. (Ali et al 2006, Bradshaw 2006) affirmed that only one required course appears to yield significant differences in attitudes between the groups. Opportunities to attend courses relating to the IE programmes were the tool to increase the level of teachers' competency.

IE is successful where there is law and policy on inclusive education. A question raised from this finding is "does the existing positive attitudes reflect their behavior?" Linear et al (1996) showed that forced inclusion of students with disabilities into the regular classroom may force teachers to reassess their professional roles like resigning the job. While it is seldom the case in Vietnam where teachers can only live up on their income from teaching jobs, and while attitudes can be influenced by pre/in-service training as proved above, trends of behavior could be worse.

2.2.2.3. Support factors- the predictor of teacher attitude

As noted earlier, Avramidis et al (2000) identified the level and nature of support that teachers receive is one of the most important factor affecting teachers' attitudes towards students with disabilities.

A shortfall in resources was the most frequent research finding on this topic (Avramidis et al. 2000, Abbott 2006). In the light of the model of complex change adapted by Knoster, Thousand and Villa upon which Avramidis et al. (2000) and the current research also identified lack of resources * leading to frustration in the process of change to inclusive schooling. The fact is that secondary school teachers in Ghana were negative regarding the adequate resources, which contributed to the way they perceived that policy makers imposed inclusive education (Agbenyega 2007). However, Avramidis et al (2000) argued that how the resources are being utilized is of importance rather than availability of more people or more computers. Kearney et al. (2000) particularly focused on the support issue in their research on the New Zealand teachers' perceptions of level of support for inclusion of learners with special needs. Teachers reported that they were under-supported. The finding also showed what teachers would like to have available for the successful inclusion of students with disabilities in their classrooms including teachers aide hours, special programs, small group teaching, resource/support teachers and support from principals, senior staff and colleagues (Kearney et al. 2000).

Research has been done in different part of the world, mostly in developing countries to investigate the impact IE funded projects in comparison to non-project schools. There was no statistical difference between two groups of teachers as found by Agbenyega (2007). Projects schools in Ghana did not display positive attitudes among teachers to enable them to reduce their concerns about inclusive practice during the two years of the projects' operation (Agbenyega 2007).

It was upon this foundation built from the theories of attitudes with three dimensions (i.e., cognition, affection, and behaviour) and model of complex change with five variables –vision, knowledge and skills, incentives, resources and action plan) and

from the findings of the previous related research, the current study was developed and shaped its findings.

3. Chapter 3: Methods

The study was carried out in six districts of six provinces: two in the North, two in the South and two in the central part of Vietnam. They were the districts with on–going projects or newly phased-out projects on IE funded by INGOs. Twenty-four project schools of six districts took part in the survey. School administrators (32) and all regular teachers (529) with experience with students with disabilities and were teaching them at the time of study of these schools answered the questionnaires.

3.1 Research Design

The research was carried out following quantitative approach based on a survey design with the use of self-administered questionnaire as the sole research instrument. There were some reasons for my choosing survey design.

Firstly, it allowed me to reach a large number of respondents and to generalize the research findings to a representative population (Gall et al, 2003). Secondly, with this study, I was not simply interested in describing the characteristics of a set of cases but also in explaining "WHY" a cause develops. In other words, after dealing with question of "*what things are like*" as the nature of descriptive research by using the structured data retrieved from the questionnaire, I went further with explanations of what might cause such phenomenon. According to Vaus (2002), explanatory approach searches for causes of phenomena, which can be located by comparing cases to find systematic differences. Thus, they were two objectives of my study that could be satisfied by survey but not other designs e.g., qualitative case study which does not fundamentally rely on comparing cases but on fully understanding the 'wholeness' of particular case within its context (Vaus 2002). Structured and systematic data collection and analysis that are distinct characteristics of quantitative survey design (Vaus 2002) that helped me in the quest of drawing causal inferences of LSE teachers' attitudes towards inclusion of students with disabilities. *Thus, a descriptive – explanatory approach* was employed for my study.

3.2 Instrument

It is presumed that an attitude could be accurately assessed only using a large set of questions that were selected via an elaborate procedure (Albarracin et al 2005). It was the reason why the survey instrument of a questionnaire was chosen for data collection also due to the fact that this study would involve a large number of respondents. A self-administered questionnaire was developed including two sections with 45 items and sub-items. The instrument had been mainly modified from the Attitude Towards Mainstreaming Scale (ATMS) developed by Larrivee and Cook (1979). This standardized questionnaire was chosen because it was designed specifically for regular teachers (Larrivee et al. 1979). The original language of the instrument was in English and was then translated into Vietnamese by the researcher to administer in Vietnam.

Section A sought the respondents' demographic information which comprised of 16 items including 3 sub-items of item 6. This section was diversified with different types of questions: contingency question (item 6), multiple choices with both close-ended and open-ended answers (items 5,6a and 8), numeric open-ended questions (items 3, 6b and 7) and text open-ended questions (items 6c) (See Appendix 1). Open-ended questions were used to give room for respondents to express themselves freely and not to be tightened by the choice provided. This also helped to identify the reliability of the information provided, which was circumstantial in this study. This demographic section also included 5 point Likert- scaled items (from item 9 to 13) seeking respondents' evaluation of different issues which were considered to associate with teacher's attitudes towards inclusion (See Appendix 1). Items 9,11,and 12 were modified from Larrivee and Cook's ATMS (1979). Item 10 and 13 were newly developed. Item 10 concerning teachers' expectations of students with disabilities' performance was considered important factor in relation to affective component of teachers' attitudes. Reason for the development of item 13 will be explained shortly.

Section B was modified from Larrivee and Cook's ATMS (1979). The original ATMS (1979) contained 30 Likert-scale items. But the questionnaire used in this

study consisted of 29 standardized items. Item 26 of the original ATMS was removed since it was the only item concerning students with disabilities' parents. Instead, it was modified to become item 13 of Section A as mentioned earlier. This item sought teachers' evaluation of participation of parents of students with disabilities.

The use of ATMS lent support for reliability and validity of my study despite the fact that it was developed in the context of integrative setting (not inclusive setting), at a different time (1979) and in a different culture (i.e., the United States of America). ATMS overall scale items and sub-scales go in line with the IE principles, i.e., fostering the understanding and acceptance of differences between students with disabilities and their peers; creating every opportunity for students with disabilities to functions in the classroom (UNESCO, 1994). It called for the adjustments in regular classroom procedures, the knowledge, skills mastered by teachers to meet the needs of students with special needs, which are all supposed to be in inclusive schools. The ATMS also implied the academic and social benefit of being in a regular classroom against the negative effects as the results of being in special settings, which Salamanca declaration also agreed that within inclusive context, those with special educational needs can achieve the fullest educational progress and social integration (UNESCO, 1994). The five original sub-scales were also used for analysis in my study namely: (i) Teachers' understanding of general philosophy of IE; (ii) Classroom behaviour of students with disabilities; (iii) Classroom management; (iv) Impact of inclusion on academic and social growth of students with disabilities; and (v) Teachers' perceived ability to teach students with disabilities.

The wording of the original scale items were amended to be appropriate for Vietnamese context, for example, handicapped students becoming students with disabilities. The original 5 point Likert scale was modified to 4 points ranging from strongly disagree, disagree to strongly agree and agree with the value of 1, 2, 3 and 4 respectively. The value "uncertain" was decided not to be used to avoid the tendency around this neutrality. The lowest value was accountable for negative attitudes and highest value was for positive attitudes.

3.3 Population and sample selection.

3.3.1 Population

The population in my study was described by these following criteria:

(i) They were regular teachers (head teachers; subject teachers) and school administrators (principals; vice principals) of LS schools in Vietnam.

(ii) They had experience with students with disabilities.

At LSE in Vietnam, a head teacher, who is called class teacher in other countries, is responsible for one class both in term of academic as subject teacher and class administrative issues. And there are other subject teachers in each class.

There were reasons for including school administrators this study. Firstly, they played an important role in the development of IE as the "messengers" of the external change initiative to their schools. That is why most IE projects in Vietnam started with training for school administrators on the general IE philosophy. Secondly, LS school administrators in Vietnam are also subject teachers (but not head teachers). Consequently, I found it important to include administrators in the survey.

The initial plan was to include both teachers with and without experiences of working with students with disabilities with the view to finding the differences in attitudes between the two groups. Theoretically, attitudes are acquired through experience (Antonak et al.2000). Additionally, the fact showed that the trial phase of IE at LSE has been starting for two, or three years now in accordance with project phase. Thus, the number of teachers without experience would exceed the number of teachers with experience with students with disabilities, which would lead to statistical inequality of variances and that cannot guarantee statistical test results relative to these groups.

3.3.2 Sample selection

Once the population was defined, the sample selection was made. As mentioned earlier, inclusion at LSE was newly developed by INGO projects. Thus, provinces without funding projects were dismissed from the initial plan. Finally, my sample was presented by all the criteria of the population described above and selected from provinces with INGO funded projects.

List of INGOs with projects on IE at LSE was collected from INGO Directory (NGO resource centre, 2007). Four INGOs found to focus entirely on IE at this education level. Other INGOs worked on offering grant for LS students with disabilities, school infrastructure, and vocational training. These four INGOs were contacted for their project fields. Six provinces were informed that were operating and one just finished IE projects. The projects in these provinces were just implemented at district level. The decision was made to carry out the survey in all INGO funded districts.

3.4 Data collection procedure

3.4.1 Pilot study

With the view to examining the completeness of the questionnaire, 25 Northern regular LS school teachers with experiences with students with disabilities and 3 IE teacher trainers actively took part in the pilot study. The questionnaires were collected after one working week (from 27th August to 4th September 2007). This timeframe was then applied for the official data collection.

Pilot study was expected to provide information about deficiencies and suggestions for improvement (Gay et al. 2003). Thus, the piloted respondents were requested to make comments, circle confusing words and suggest equivalent wording if possible. With experience of working directly with teachers in project funded in-service training on IE, those three trainers helped to adjust terminology, wording and questionnaire instructions to be appropriate to teacher's level of understanding of the subject matter as well as to the traditional practices of survey research using questionnaire in Vietnam. This pilot test surprisingly acted like a cross check between the teachers and the trainers. In most cases, they shared the same comments and/or suggestions for the questionnaire, which I found sufficient to have adjustments. Specifically, the age was changed to the year of birth. The reason was due to the practice of counting age in Vietnam which is based on two systems. Officially, people's age is counted from the day of birth as in other countries. Traditionally, a baby turns one year old at birth because the nine months' pregnancy is also counted in the age. Consequently, when asked about age, respondents may answer either the

official way or traditional way. The latter tended to occur in the rural or suburban areas, where people are much embedded with tradition (Huu Ngoc 2004), which may cause unexpected difficulty in analyzing the data. Thus, year of birth was asked for. Value "zero" was included in the scale for items from 9 to 13 as the result that 19 out of 25 piloted teachers individually added “zero” which was equivalent to “not at all” in response to their evaluation of degree of success, expectation of students with disabilities’ performance, level of support and participation of parents. The instruction as commented was also reformed. Generally, instruction was important in ethical guarantee. In this study, it assisted in ensuring validity and reliability of the data. Specifically, respondents were requested to “be true to themselves”. Since traditionally, respondents tend to copy from each other. At the end of the questionnaire was instruction to request respondents to ensure no item to be omitted.

3.4.2 Gaining entry to school

Upon agreement with INGO personnel in charge of IE projects, the LSE directors at provincial/district level were contacted by phone for permission to implement the survey. Consequently, appointment with each province/district was made carefully for traveling plan to guarantee the study pace.

Once approaching the field, the contacted directors provided me with introductory letters to access schools under their authorities. One Southern province suddenly refused me due to a recent research on related topic by a student from France with findings that showed negative image of the province. One district and three schools in two different Central provinces could not be accessed due to the typhoon and floods. All of these unexpected facts caused the unequal numbers of the respondents among three different regions.

Eventually, six cities and districts, one in each of six provinces participated in the study. Then the survey respondents were selected based on the sampling criteria. There were totally 24 LS project schools including students with disabilities. Specifically, 12 Northern schools, 7 Central schools, and 5 Southern schools with all

their school administrators and regular teachers with experience of working with students with disabilities took part in the survey.

3.4.3 Response rate

The final questionnaire was finalized after taken useful comments and suggestions from the pilot test into thorough consideration. The official data collection was then carried out from 7th September to 7th October 2007 in 24 identified project schools.

Data collection procedure started in each school with a short meeting for introduction, questions and answers about study related issues with the school administrators or personnel in charge when the former were away. The number of teachers with experience with teaching students with disabilities in each school was also identified by the administrator right at the meeting based on the inventory of the school labour division. The school administrators were also responsible for distributing to and collecting the questionnaires from the identified teachers. After one week, the questionnaires were returned to me directly.

There were totally 611 questionnaires distributed, 590 of them returned. 561 questionnaires were used for analysis. The response rate, therefore, was 91.8%. 29 questionnaires were invalid because of copying among teachers. Further explanation assumed to be important to validity and reliability, which will be provided later.

3.5 Statistical procedures and analysis

The Statistical Package for Social Sciences - SPSS Version 15 was used for data analysis. The statistical procedures were done by both descriptive statistics and inferential statistics. To generalize the results of the sample to population of IE project school teachers, test of statistical significance was mostly used. Before start, some issues relating to how I organize the data for analysis deserves description.

3.5.1 Data preparation for analysis

This section focused on preparing data for analysis. However, it is not intended to go into the whole process from developing the code book to entering the data into SPSS, but to describe how I treated the “hidden” data which was not obvious from the

questionnaire. By “hidden”, I meant the underlying data which might need categorizing and then coding from open-ended demographic items. This procedure was very pivotal in my descriptive – explanatory study concerning the investigation of causal factors to regular teachers’ attitudes.

(a) Data retrieved from information about City/District (Item 4)

This information produced two nominal variables, i.e., *region*: the North, the Central and the Sound of Vietnam, and *location* of respondents categorized as urban, suburban, town and rural areas. By town, it was meant the political, social, economical centre of a province but not identified as an urban city by GoV.

(b) Data retrieved from information about respondent’s responsibility (Item 5)

This was multiple choice item allowing the respondents to have more than one choice in case they took more than one responsibility. As explained earlier, either school administrator or head teacher was also subject teacher in Vietnam, which in combination with the information about the subject they taught created the variable about how much contact the teacher had with their students with disabilities per week per class. The “*how much contact*” was measured by the number of periods each teacher taught her subject per week. It should be noted that this variable only provided data about teacher’s weekly workload in one class with students with disabilities but not about how many classes and how many periods totally under her responsibility per week. This estimation was based on the National Working Timetable for Lower Secondary Schools issued by MOET. In Vietnam, one period takes place in 45 minutes followed by a short break. The provided information was categorized into three groups: teachers with under 2 periods per week per class including teachers of History, Geography, Civil Education, Fine Art and Music; teachers with from 2 to 3 periods including teachers of Physics, Chemistry, Biology, Foreign language, Technology and Physical education; teachers with from 4 to 5 periods including teachers of Mathematics and Literature. Head teachers spent one period on Saturday for weekly review section exclusively ad-hoc events. Thirteen school administrators who were also subject teachers reported that they taught Civil

Education. In this case, they belonged to the "under two periods per week" group. However, for the purpose of statistical test, they were included in school administrator group because of very small number.

(c) *Categorization of training contents on special needs education (Item 6c)*

Basing on information provided by respondents and from the INGOs documents, training contents were classified into (i) General IE philosophy which included rationale for IE (FBB 2006; Villa et al. 2003); (ii) General SNE knowledge focused on history of SNE (Villa et al 2003); definition and classifications of disabilities, students with disabilities, psychological and emotional characteristics of students with disabilities, student assessment ; (iii) Specific disability-based knowledge and skills, that focused on inclusion of children with a certain disability (FBB 2006; Villa et al. 2003). Most of the teachers with students with visual impairment in the current research, for instance, received training on understanding psychological characteristics of students with visual impairment, Braille and translating Braille.

(d)Hidden impairments (Item 8)

This is the label for the data received from the sub-item "*Other*" [impairments] experienced by respondents' students who did not belong to the listed impairments. Only 4 teachers specified that they had students with heart problems, epilepsy, "psychological" problems, which I categorized as "hidden impairments". Hidden disability is defined as a catch-all phrase that simply means a person's impairment or condition which is not obviously apparent or visible. It is probably more commonly used in relation to people who have disabling medical conditions of one sort or another…as epilepsy, diabetes, heart, liver or kidney problems (the Open University 2006; the United State's Department of Education 1995).

3.5.2 Development of teacher attitudes towards inclusion scale

Sixteen out of 29 variables of ATMS (Appendix 1- Section B) after entered in to SPSS were reversed to high code for positive attitudes towards inclusion. They are items numbered 2, 3, 5, 7, 9, 11, 12, 15, 17, 19, 20, 22, 23, 24, 25 and 28 of section B. Then, to assess whether each item belonged to the scale or not, the test for

unidimensionality and for reliability were made by measuring item-to-scale coefficients and Cronbach's alpha coefficient respectively (Vaus 2002). As a result, six unreliable items (3, 8, 13, 16, 22 and 26) were dropped. The final overall attitude towards IE scale consisted of 23 items with Cronbach's $\alpha = 0.785$, which satisfied the assumption that "*alpha should be at least 0.7*" (Vaus 2002, p.184).

The five sub-scales also underwent the same procedures for reliability test. Consequently, the two sub-scales namely *Classroom management* and *Impact of inclusion on academic and social growth of students with disabilities* were dropped out because of their low Cronbach's alpha values of 0.461 and 0.460 respectively. Details of overall attitude scale and sub-scales will be presented in the next Chapter.

3.5.2.1.Statistical methods for analysis of overall and sub scales

The overall and sub-scales were analyzed following different statistical ways with the view to shaping a descriptive picture of teacher's attitudes. Specifically as follows:

(a) Each scale was firstly developed by summating each item score belonging to that subscale. Then based on the total score of each case, the estimation was made to create three ranges, i.e. negative (disagree), neutral, and positive attitudes (agree) by using cut-off points. This statistical method was made with the subscale namely "*Understanding general philosophy of inclusion*" as an example. This subscale contained 8 items. 1 point was assigned for strongly disagreement, 2 points for disagreement, 3 and 4 points were for agreement and strongly agreement respectively. Consequently, it could be seen that the range from the lowest point of the sub-scale to 16 points (i.e. 8 items x 2 points) was equal to negative attitude. Similarly, the range from 24 (i.e. 8 items x 3 points) to the highest points was equal to positive attitude. The middle range from 17 to 23 points (i.e. (8 x 2) + 1 = 17 → (8 x 3) – 1 = 23) was statistically divided in quartiles. The first 25% of cases nearest point 16 possessed negative attitudes. The last 25% of cases nearest point 24 held positive attitudes. The middle 50% of cases were neutral in attitude to inclusion. Consequently, the final divisions of this sub-scale were: (i) Negative attitude range from 15 to 21 points; (ii) Neural attitude range from 22 to 23 points; and (iii) Positive

attitude range from 24 to 32 points (See Appendix 4 for analysis of the total scale and other subscale).

(b) Another analysis was originated from recoding four original values to two values. Value 1 for "strongly disagree" and value 2 for "disagree" were recoded as 1 for "disagree". Value 3 for "agree" and value 4 for "strongly agree" were recoded as 2 for "agree". The purpose was simply to have a general picture of which side the teachers favoured but not to investigate how much strong it was.

(c) Inter-item correlation matrix was also developed to discuss relationship between variables of the subscale. Just three highest values were used for this purpose.

3.5.2.2. Support scale

It was presupposed that support that teachers received from INGO project funding, would influence their attitudes. Accordingly a sub-scale was developed from items 23 and 24 focusing on support issue. They were correlated with Pearson 0.620 ($p < 0.001$). Thus, analysis and discussion were made regarding support teachers received and their attitudes.

3.5.3 Statistical significance methods

A number of statistical significance test were used to investigate the relationships between dependent overall scale and sub-scales and different independent variables with the view to finding influential factors to teachers' attitudes in this study.

The decisions to choose appropriate tests were made based on the book entitled "Quantitative Data Analysis in Education – A critical introduction using SPSS version 15" by Paul Connolly (2007). Before using any test, it is required to check the assumptions which the test is based on have been met or not (Connolly 2007).

3.5.3.1.Independent nominal variables and dependent scale variable

- Independent sample t-test vis-à-vis Mann-Whitney U test, which could be used to compare the variables with two categories with the overall scale or sub-scales. The former should be used when the assumption that "the spread (variance) of the scores

for both groups on the scale variable are roughly equal" is met, otherwise the latter will be used instead (Connolly 2007).

- One-way ANOVA vis-à-vis Kruskal Wallis test, which were used for the variables with three of more categories in relation to dependent scales. The same assumption as above was applied to choose the right test. Kruskal Wallis would be used instead of one-way ANOVA when the variances were unequal. If Levene's test got $p \geq 0.05$, one-way ANOVA could be used.

3.5.3.2. Effect size estimation

Once a difference was found, Pearson correlation test would be used to measure the effect size of such difference.

This study also employed many Chi Square (Cramer V's) to test the relationship between nominal demographic independent variables. The underlying reason was to gain an in-depth nature of the potential influential factors to teacher's attitudes.

3.5.4 Content analysis of open-ended comments

At the end of the questionnaire, teachers were requested to raise the issues that concerned and interested them that had not yet been covered. Even though there were only 85 teachers (15.2%) responding, they provided appropriate information for the research problem. The information when analysed generally appeared to form its content "umbrella". Finally, the data was coded into five categories namely support for teachers, support for students, teacher education, general concerns about inclusion implementation, and teacher's support of other kinds of education rather than inclusion. This data was found useful in interpreting teacher's attitudes.

3.5.5 Other significant sources of information

As mentioned earlier about the meetings with school's administrators prior to distributing the questionnaires. In addition to functioning the administrative issues, these meetings were incidentally informal venue where the administrators, and in many cases, the teachers shared their thoughts and comments about their works relative to students with disabilities. The information was found "rich" and was noted.

Other information shared by the schools was the list of students with disabilities included their names, disability conditions, head teacher's name, parents' name, etc...

In Vietnam, when information is shared "on the table" with an outsider, it means it is open for public. Thus, the decision was made to use these data for discussion in the current study. To guarantee the anonymity as agreed upon with the respondents who answered the questionnaires. This information was treated in the same way and was called "*informal data*" when referencing in text. Details of statistical results will be presented and analyzed in the next chapter.

3.6 Reliability and Validity

A questionnaire is valid if it measures what it is supposed to measure and it is reliable if the responses are consistent and stable" (Frazer et al 2000). The use of ATMS by Larrivee and Cook (1979) lent support for reliability and validity of this study. The initial step to reassure validity and reliability was pilot testing by administering the questionnaires to a smaller sample (25 regular teachers) to that to be used in the actual study (Vaus 2002). What follows is application of these issues in this study

3.6.1 Reliability- Threats to reliability and solutions

The best way to create reliability is to use well-tested questions from reputable questionnaires (Vaus 2000). The use of standardized ATMS allowed me to assure reliability of the instrument. The ATMS had a reported split-half reliability of .92 on its first use (Larrivee et al 1979). The reliability of the ATMS in this study by estimating Cronbach's alpha coefficient of internal consistency was .785. Additionally, other efforts were made to identify the threat to reliability and solutions

Translation and dialect differences

According to Vaus (2002), a question may be unreliable due to bad wording. The threat to reliability of this research instrument might be resulted from translation, and respondent's different dialects. The instrument was translated from English into Vietnamese by the researcher, who had four year experience of translating and interpreting in SNE field from English to Vietnamese and vice versa. To avoid unaware subjective mistakes, the translated version was then sent to three Vietnamese

SNE trainers for language scrutiny. These trainers have long experience with SNE delivery in cooperation with international SNE experts where they have one more role as interpreters. Thus, they are familiar with the SNE language especially language understandable to teachers. As mentioned earlier, the trainers also checked and consulted technical issues of the questionnaires during pilot test.

Like other countries, besides the National official language, there are dialect differences existing in three different regions in Vietnam. The more remote people live, the more embedded they are by their dialects (Pham 2007). While the National language is used in the instrument which is considered as language of the North (Pham 2007), rural Southern teachers may not be familiar with some words used. This issue despite foreseen was still remained limitations of this study.

Copying answers

Another threat to reliability which was considered as a research related traditional issue regarding copying answers among the respondents as mentioned earlier. Open-ended items were used in this study partly to assist in identifying the imitations. It was decided to use only one returned questionnaires if there were word-by-word copying found. As a result, 29 returned copied questionnaires in different schools were invalid. Of 590 returned questionnaires, threat minimization effort resulted in 561 valid questionnaires was considered good enough.

3.6.2 Validity

Validity had to do with an instrument's appropriateness for accomplishing research's purposes (Henerson et al 1987). Vaus (2002) argued that it was not the measure that was valid or invalid but the use to which the measure was put. The validity of a measure then depended on how we defined the concept it is designed to measure. In my study, I demonstrated construct, content, external validity.

a. Construct and content validity and challenges

These two types of validity were related to each other as explained by Henerson et al (1987): construct validity referred to how well the instrument measured what it claims to and content validity referred to how well the items gave appropriate

emphasis to the various components of the construct. My efforts were made through careful and thorough literature review to find out the popular findings among previous related research with the special focus on what were the influential factors to teachers' attitudes towards IE of students with disabilities, but before that, what IE was about.

However, IE as mentioned earlier was contended. As Booth et al. (2002) stated *everyone has his or her own view of a complex idea like inclusion*. Previous study showed that teachers did not possess a consistent understanding of inclusion (Avramidis et al 2000). Despite talking about IE, their expressions implied very much integration practices, which was also a threat to validity in this study. Although the study was implemented at IE project schools and the respondents sampled had experiences with students with disabilities, a large number of teachers (343 out of 561) had no kind of training. As explained by Henerson et al (1987), people could not respond accurately to questions they did not understand. Additionally, sometimes, a question may appear to be understood, but the person may not be aware of his or her own attitudes.

This issue needed emphasizing in further research concerning how teachers reflected their belief, opinions (cognitive factor), and their feelings about inclusion (affective factor) on their overt action (behavioural factor), in other words, their practice of IE in natural settings. Tackling it successfully, the answer for the question "do the teachers mean what they mean" can be valid.

b. External validity

External validity was the extent to which findings in one study could be applied to another situation (Gall et al.2003). External validity was also understood as population validity, which was met in this study because the sample was randomly selected. However, the sample was regular teachers of IE project schools. Thus, the research findings could just be generalized to all the population of the same criteria. Although there were no identified non-project LE inclusive schools, generalization of the result to the bigger population was daring and object for question.

3.7 Ethical considerations.

The following ethical issues as recommended by Gall et al. (2003) were carefully considered during the study (i) the respondents were selected equitably in the way that all teachers with students with disabilities in each school were selected following the sampling criteria as mentioned in 3.4.3; (ii) The confidentiality of the respondents was guaranteed by anonymousness-based responses, which was explained in the instruction of the questionnaires. This instruction also informed respondents that provided information to be disclosed to the researcher; and the intended use of the research data that was to be collected. Confidentiality in relation to the school is also protected by not using the real names of schools in the writing of this thesis.

3.8 Limitations and dilemmas

In addition to the threats to the reliability and validity as discussed, which are the limitations and dilemmas of this study, there are some other concerns as follows:

- Fabrication of results is mostly known as the ethical issue in data analysis of quantitative research. According to Vaus, results can be misrepresented without fabrication, however by inappropriately analyzing data (2002, p.209). He also pointed out that despite happening without deliberation, inappropriate analysis can be just as misleading as deliberate falsification of data. Vaus, therefore, stressed that researchers ensure to "have the necessary skills to analyze data thoroughly and appropriately" (2002, p.209). As a fresh quantitative researcher who learnt how to use SPSS for the first time, insufficient knowledge and skills for analysis are unavoidable.

- The construct and content validity of the attitude measurement in this study were unavoidably open to question when there were 6 items excluded from the overall attitude scale. The teachers' attitudes towards inclusive education of students with disabilities were difficult to be measured because of excluding two low reliability sub-scales as mentioned earlier which would be used to measure the cognitive and behavioural component of the teachers' attitudes.

- Generalization of the research finding should be made with caution when one province, one district, and three schools were unreachable as explained in 3.4.2.

4. Chapter 4: Data presentation and result discussion

There follows an analysis of data retrieved from the questionnaires answered by 561 regular teachers. The results will be discussed in the light of the theories and model of change as introduced in chapter 2. This chapter will be divided into three main parts. The first part focuses on analysis and discussion of the overall teacher attitude scale (hereinafter called the *overall scale*) and its sub-scales towards IE of students with disabilities. The second part will present and discuss the results relating to the three groups which are often found influential to teacher's attitudes towards inclusion, i.e., teacher-related factors, student-related factors, and environment-related factors. The objective is to establish reasons for teachers' attitudes. Thus, the investigation focuses on the relationships between the independent variables relating to each of the group factors above and the dependent overall scale of teachers' attitudes towards inclusion of students with disabilities. The last part will focus on the content analysis of open-ended item. This is the final section of the questionnaire where the respondents could make comments or issues not included in the questionnaire. The research statistical data in will be presented in percentage and integer number.

4.1 Descriptions of attitudes towards inclusive education

4.1.1. The teacher attitude towards inclusive education overall scale

The overall attitude scale consists of 23 items with the achieved coefficient alpha of 0.785 (Appendix 3) with 23 point for the extremely negative attitude score and 92 point for the extremely positive attitude score. The scale is approximately normal distributed with the scores ranging from 37 to 81 (M= 60.03, DF = 6.488, N=561). Table 4.1.will present the results following the cut-off point method (See 3.5.2.1.a)

Table 4.1: Lower secondary school teachers' attitudes towards inclusion

	Negative Range 37-55		Neutral Range 56 -62		Positive Range 63-81	
	N	%	N	%	N	%
Overall teacher attitude scale towards inclusion	121	22	257	46	183	33

Table 4.1shows almost one third of teachers in this study had positive attitudes towards including students with disabilities in regular classrooms. One fifth of

teachers with negative attitudes towards inclusion were unexpected in the context of newly developed inclusion approach among schools in this study. Nearly half of the teachers had somewhat ambivalent view due to their neutral attitudes. It could be interpreted that those 257 teachers had both negative and positive attitudes. The finding of this study was different to a study with Vietnamese IE primary project schools after a few year of implementation in which 97% of the teachers supported inclusion of children with disabilities, and almost the same number of them (96%) were willing to be inclusive teachers (Le 2000b). However, in another research with non-project schools, half of the Vietnamese inclusive primary teachers disagreed with the inclusive schooling for children with disabilities (Nguyen 2006). The support from the projects can lend the support for the contradiction found in those two findings. Not enough physical resources and training for IE implementation were the reasons provided by the teachers for not supporting IE in the study by Nguyen (2006).

Most of schools in this study joined the INGO projects for maximum three years now. In the light of change theory, the involved teachers were shifting to change firstly by developing a new vision relevant to this change. According to Thousand et al (2005), each stakeholder in the inclusion of students with disabilities had their own rationale or moral purpose of education (Fullan 1993), which acted as the basis for their vision. The following is the investigation of what can be the rationales for the teachers' vision of their current work with students with disabilities in regular classrooms through the analysis of the sub-scales.

4.1.2. Teacher attitude towards inclusion sub-scales

Larrivee et al. (1979) developed five sub-scales in addition to the overall attitude scale. As explained in 3.5.2, only three sub-scales will be analysed and discussed namely (i) Teachers' understanding of general IE philosophy; (ii) Teachers' perceived ability to teach students with disabilities, and (iii) Classroom behaviour of students with disabilities. The two others were excluded because of their low reliability coefficient. Where applicable, the items of unused sub-scales will be interpreted in case they are found to support the construct and content of teacher's

attitudes. When used, it will be marked with (*) next to item number to be differentiated with the items of the sub-scale in question. With each of the sub-scales, the results following cut-off point method (See 3.5.2.1a) will be presented first then followed by the result of each item following "disagreement" and "agreement" categories (See 3.5.2.1b).

4.1.2.1. Understanding general philosophy of inclusion

Vision can be considered as belief and knowledge of school administrators, class teachers, parents and students themselves about IE (Le 2001). According to Thousand et al. (2005), any personnel involved in the change process can act as the visionizer. The content of this sub-scale helps to give a picture of what the vision of IE built by Vietnamese teachers as the change agents. The cognitive dimension of teacher's attitudes (Eagly et al.1993) will also be discovered as a result of this sub-scale.

This sub-scale contained eight variables (items 6, 15, 18, 21, 23, 25, 27, and 29 – Section B- Appendix 1). The test for reliability coefficient gave the Cronbach's alpha value of 0.607 (Appendix 4.1). The sub-scale had 8 point for the extremely negative and 32 point for the extremely positive attitudes towards the general philosophy of inclusion. The range of this sub-scale as a result was from 15 to 32 (M = 23.22, SD =2.504). Table 4.2 will present the results of three categories: negative, neutral and positive attitudes following cut-off point method (See 3.5.2.1a).

Table 4.2: Teacher's understanding of general IE philosophy

	Negative Range 15 - 21		Neutral Range 22 - 23		Positive Range 24- 32		Total	
	N	%	N	%	N	%	N	%
General IE philosophy	117	21	218	39	222	40	557	100

When change is realized, there will be resistance to it (Thousand et al.2005). The result shows more supporters than non-supporters to IE movement. As can be interpreted in the light of Ambrose's model, the teachers' understanding of IE philosophy was likely to put confusion about change to IE under control in this process. This could be as a result of the schools' effort in communicating the rationales that are most compelling to their teachers (Thousand et al 2005). Further investigation of each item in this sub-scale helps to justify those arguments.

Table 4.3: Disagreement and Agreement Categories

	Disagree		Agree		Total	
	N	%	N	%	N	%
ATMS6	63	11	498	89	561	100
ATMS15	441	79	118	21	559	100
ATMS18	98	17	463	83	561	100
ATMS21	348	62	213	38	561	100
ATMS23	397	71	164	29	561	100
ATMS25	463	83	97	17	560	100
ATMS27	28	5	532	95	560	100
ATMS29	52	9	509	91	561	100

There were 95 % of teachers sharing an agreement about the equal opportunity provided to students with disabilities in regular classrooms (Item 27). This high consensus may be grounded in the existing responsibilities of LS educators assigned by the Government. These assignments are (i) achievement of LSE universalization by 2010; (ii) implementation of the curriculum reform which focuses on change to learner-centred instructional methods; and (iii) improvement of equality in education (Le 2006). To accomplish these responsibilities requires the teachers to consider all students who are being excluded including students with disabilities. But which factors of IE are considered by the teachers when they do their assignments?

The finding reveals that teachers agreed with the positive benefit of inclusion for students with disabilities. However the similar benefits for the students without disabilities were likely to cause disagreement among them. This could explain for the mixture of both negative and positive attitudes found above. The teachers agreed that interaction between groups of students fostered understanding and acceptance on the parts of regular students reflected on the fact that students without disabilities did not socially isolate or do anything harm against their peers with disabilities (items 6, 15, 25, 29). But 62% of them did not think that students without disabilities can be the beneficial target group of this inclusive process (item 21). These results show that the teachers seemingly had positive attitudes towards the social benefits of inclusion for both students with and without disabilities but not towards the academic benefits, especially for students without disabilities. This could lend the support for the teachers' opinion that the time and extra attention required by students with disabilities could be detrimental to other students (item 5* and 17*- Appendix 2). The pressure of finishing the 45- minute class on time as the regulation of the Vietnamese

Ministry of Education combined with paying attention to students with disabilities concerned the teachers. This concern could originate from the current procedure of competition-based assessment of teachers. Following the assessment the on the basis of class observation made by the school administrators and the school inspector, teacher would be good, rather good, meeting the minimum requirements, or the minimum requirements are not reached (Cao 2003). One of the requirements is that an observed teacher "*does not burn the lesson plan*" (meant "does not finish the lesson planned within 45 minutes"). This pressure might force teachers in the study to finish her class on time rather than spending more time to meet the needs of students with disabilities. Also according to Cao (2003), assessment of teachers in Vietnam has been problematic. Since the number of teachers evaluated "good" is ascending, the education quality for student is descending. The concerns of teachers were understandable when the knowledge content of LS curriculum was voluminous. As a consequence, LS students were overloaded with subject knowledge, while subject teachers just put efforts in how to finish the lesson on the planned time rather than providing students with skills to study more effectively (Tran 2001). The heart of the 21st-century curriculum is learning how to learn, and how to be a lifelong inquirer (Villa et al.2001, p.45). Their bigger concern is whether they could impart the planned subject knowledge for the whole students in their class to meet their academic demands. This is the teachers' struggle with the incompatibility of the quest for academic excellence in schools with the extension of the principle of equity and universal access (Florian et al 2001). As a result, they expressed their support for special settings where students with disabilities "will probably develop academic skills in more rapidly than in a regular classroom" (item 11*-Appendix 2). But for the time being, their willing to teach students with disabilities seems as a result of empathy as argued by Nguyen et al. (2006).

An empathy-based vision for IE can be concluded from the result of teacher's understanding about inclusion. Opdal et al.(2001) considered it the ideological basis for teachers' opinions about IE, which may influence the implementation of inclusion. Looking at education for children with disabilities as an object of empathy

has been under many discussions in terms of inclusion vis-à-vis traditional teaching and as a result, the quality education for students with disabilities. Since education for students with disabilities is considered empathetic by its providers, the students are accepted in the regular classroom with no adjustment made from the teachers and classroom to accommodate their learning. Instead, they have to adjust themselves to fit in the teachers' traditional teaching all the students in the class the same content (Johnsen 2001).

As mentioned above, the reform of curriculum and instructional methods based on learner-centred approach are implemented in LSE in Vietnam. According to change theorists, reform serves the aims of school improvement and effectiveness as mentioned in chapter 2. The teachers in this research at the same time are implementing inclusion of students with disabilities, which is revealed by the results that they are both positive and negative attitudes about it. These attitudes varied when it came to the issues of understanding general IE philosophy where the teachers seemed to struggle with the dilemma between academic targets for students without disabilities on the one hand and inclusion of students with disabilities on the other hand. This result shows requirements for action planners of IE to make clear the vision that IE does not relate merely to the inclusion of students with disabilities but to promote higher levels of learning achievement *for all students* (UNESCO 1994) and that inclusion is concerned with school improvement (Florian et al, 2001)

This sub-scale as mentioned in chapter 2 aimed at investigating the cognitive dimension of the attitude (Eagly et al. 1993). The finding as discussed showed that their understanding of IE was likely to originate from their empathy or emotional side, which lends the support for the affective dimension of attitude rather than the cognitive basis of attitudes as presupposed.

4.1.2.2. Perceived ability to teach students with disabilities

This sub-scale focuses on teacher's evaluation of their ability to work in inclusive settings. The content of this sub-scale also covers the behavioural component of teachers' attitudes (Eagly et al 1993). In other words, this sub-scale contains the items seeking teachers' intentions to act in response to implementation of inclusion. In the

light of the Change Model, this sub scale discovers how teachers evaluated their knowledge and skills, which if lacking could lead to anxiety during a change process.

The original ATMS sub-scale developed by Larrivee et al (1979) consisted of 7 variables (items 1,8,12,13,16,20, and 26 – Section B-Appendix 1). However, three items:1,12, and 20 were omitted to get higher reliability coefficient for Cronbach's alpha of 0.695 (Appendix 4.2). The final sub-scale, therefore, consisted of 4 items with 4 point for the extremely negative and 16 point for the extremely positive opinions about their ability of teaching students with disabilities. This sub-scale got the range from 6 to 16 point (M = 12.25, SD=1.886). The cut-off point method (See 3.5.2.1) found no sub-range of the neutral attitudes. The overall result is showed in Table 4.4 and Table 4.5 presents the result of each item:

Table 4.4: Teachers' perceived abilitity of teaching students with disabilities

	Negative Range 6 - 11		Positive Range 12 - 16		Total	
	N	%	N	%	N	%
Perceived ability	149	27	412	73	561	100

Table 4.5: Sub-scale 2: Disgreement and Agreement Categories

	Disagree		Agree	
	N	%	N	%
ATMS 8. Regular teachers possess a great deal of expertise necessary to work with SwDs	82	15	479	85
ATMS 13. Inclusion will require significant changes in the regular classroom procedures	77	14	484	86
ATMS 16. Regular teachers have sufficient training to teach SwDs	94	17	467	83
ATMS 26. Inclusion of SwDs will necessitate extensive re-training of regular teachers	69	12	492	88

A close to three forth of teachers perceived that they had sufficient ability to teach students with disabilities. Responding to individual needs means a high level of adaptation and differentiation (Abbott 2006). 86% of the teachers in this study seemed to understand that (item 13). This result is contradictory to the finding of Lancaster et al., in which parents and teachers of inclusive schools in three provinces also participating in this research reported that there were little or no modifications made to facilitate accessibility for children with disabilities (2004, p.128). The contradiction also revealed in this study where 83 % and 85% of the teachers agreed that they had sufficient training and expertise necessary to teach students with disabilities (Item 8, 16). Nevertheless, the majority of teachers (88%) still thought re-training would be necessary as an outcome of inclusion. This controversy supports

what has been discussed earlier about the teachers' *empathy-based vision of* education for students with disabilities as suggested by the results of this study. Consequently, a traditional way of teaching is still being practised where students with disabilities have to fit themselves in teachers' ways of the *whole- class-teaching.* Following this approach is unlikely to impose re-training on teachers. Thus, it makes sense when the teachers thought they had sufficient training and expertise to teach students with disabilities. However, inclusion when mentioned (item 26) put them in realization of a new approach different to their current practice and that required re-training. This finding exposes an assumption whether IE as being implemented in those project schools is merely a linguistic shift or a new agenda in school's policy as argued by Vislie (2001).

Teachers' knowledge and skills of IE implementation seem lacking since the teachers' understanding of inclusion as discussed earlier is prone to the benefits for students with disabilities but not for students without disabilities. The needs for re-training for inclusion as expressed by the teachers suggested their lack of IE skills. In the light of the Change Model, it could be concluded that the teachers may experience anxiety (Thousand et al.2005).

4.1.2.3. Classroom behaviours of students with disabilities

This original subscale consisted of 6 items (3,7,9,14,19,and 28- Section B, Appendix 1). After tested for internal consistency reliability coefficient, item 3 was removed that led to the final 5 item sub-scale had the alpha of 0.670 (Appendix 4.3). This sub-scale has 5 points for the extremely negative attitudes and 20 points for the extremely positive attitudes of the teachers to students with disabilities' behaviour. The range of this scale is from 7 to 20 (M= 13.33), SD=2.230). Table 4.6 presents the results of cut-off point methods.

Table 4.6: Classroom behaviours of students with disabilities

	Negative Range 7 - 11		Neutral Range 12 - 14		Positive Range 15 - 20		Total	
	N	%	N	%	N	%	N	%
Classroom behaviours	111	20	288	51	161	29	560	100

This sub-scale shares the same tendency as the overall scale where there was more teachers with positive attitudes than the one with negative attitudes. However a half of the teachers had ambivalent views about students' behaviours which might include both the negative or positive attitudes. However, the results as showed in Table 4.7 reveal that the teachers were totally positive with their students' behaviours

Table 4.7: Sub-scale 3: Disgreement and Agreement Categories [a]

	Disagree		Agree	
	N	%	N	%
ATMS 7'. It is difficult to maintain order in a regular classroom that contains a SwD	400	71	161	29
ATMS 9'. The behavior of SwDs will set a bad example for other students.	348	62	213	38
ATMS 14. Most SwDs are well behaved in the classroom	251	45	310	55
ATMS 19'. It is likely that a SwDs will exhibit behaviour problems in classroom	245	44	316	56
ATMS 28'. Inclusion of SwDs creates confusion in regular classroom	413	74	147	26

a. (') item before reversed

The teachers' responses seem to imply that inclusion of students with disabilities did not bring much difference in the classroom procedures. To promote inclusive practice at secondary schools, a number of teaching strategies are normally recommended including cooperative learning, peer-mediated instruction and collaborative teaching (Florian et al 2001). These strategies are also required by the current teaching reform in Vietnam as mentioned earlier. According to Thousand et al (2005), these strategies can help to merge incentives for teachers in a change to inclusive schools. However, at an early stage of implementation in the project schools in this study, the teachers may find it difficult to avoid the traditional teaching, which have been interpreted based on the results of the two previous sub-scales. In such traditional secondary class setting, there is little room for learner-centred traditions but discipline-centred approach (Johnsen 2001) where teacher just focuses on teaching the content of her subject. As tradition of this approach in Vietnam for example, students are not allowed to talk, to make comment or ideas unless teacher requests. A good class setting is a quiet place. Combined with the time pressure for each lesson, the teacher would not be willing to employ the above mentioned strategies, for example, group learning activities for students. It makes sense when the class was in order and the students with disabilities had to manage themselves as indicated by the teachers' positive responses in this study.

4.2 Change agents

Change occurs under external and internal pressures, thus forces for change come in many forms, intensities and qualities (Dalin et al. 1993). In inclusive setting, teachers, students with and without disabilities, and environment can be considered change agents. While teachers and students represent the internal change forces, the environment may consist of both internal and external forces. According to Dalin et al. (1993), change process is seen as a mutual interdependency among these forces. Variables of these three factors were found to associate with teachers' attitudes towards IE in previous studies (Avramidis et al. 2002). What follows is the effort to investigate the effects of these change agents on teachers' attitudes as described in the previous section.

4.2.1 Teacher

4.2.1.1. *General demographic information*

(a) Descriptions of Gender, Age and General teaching experience

It can be interpreted from Table 4.8 below that the number of female teachers involved in the study is approximately three times higher than the number of male teachers. This is expected after examining the national statistic of LSE teachers where there are approximately 68% female and 32% male teachers (GSO 2007). This distribution is also consistent at regional levels. However there was significantly disproportionate number of 85.3% female in compared to 14.7% male teachers in Northern part, which also shares the same regional ratio of LSE teachers for the region (GSO 2007).

Carre (1980) showed that young teachers of mainstreaming schools were prone to leave the profession during the first three years of working (Paterson 1992). As explained, during this time young teachers would be greatly influenced by the school system, which is different to what they learnt in teacher training institutions. This discrepancy may have discouraged them. Inspired by this finding, teachers from 22 to 25 years of age were grouped together and other age groups were grouped with the range of 10 years as presented in Table 4.8.

Table 4.8: General demographic information

Gender				General teaching experience					Total
				1- 5	6-13	14-22	23-30	>31	
Female	Age	22-25	N	23	0	0	0	0	23
			%	6	0	0	0	0	6
		26-35	N	22	104	6	0	0	132
			%	5	25	1	0	0	32
		36-45	N	1	15	81	19	0	116
			%	0	4	20	5	0	28
		46-55	N	0	1	7	108	21	137
			%	0	0	2	26	5	34
	Total		N	46	120	94	127	21	408
			%	11	29	23	31	5	100
Male	Age	22-25	N	11	0	0	0	0	11
			%	7	0	0	0	0	7
		26-35	N	5	33	1	0	0	39
			%	3	22	1	0	0	25
		36-45	N	0	7	27	21	0	55
			%	0	5	18	14	0	36
		46-55	N	0	0	3	33	7	43
			%	0	0	2	22	5	28
		over 56	N	0	0	1	0	4	5
			%	0	0	1	0	3	3
	Total		N	16	40	32	54	11	153
			%	10	26	21	35	7	100

The data showed that the youngest respondents were 22 years and only one oldest male respondent was 60 years old. This result was consistent with the average working population. The normal age to start career for an undergraduate is 22. According to Vietnamese Labour Law, 55 years and 60 years are the retirement age for female and male respectively. That was why five respondents in the group of "over 56" were male. As showed in Table 4.8, there is consistency between teachers' age and their teaching experience. 100% of youngest teachers have just started their teaching job. Four out of five oldest teachers belonged to the group of the most experienced one. It could be concluded that the sample of this study is "population ageing" since 78% of respondents are between 46 to 55 years old and have 23 to 30 year teaching experience. This was understandable when reflecting on the trend of professional choice nowadays in Vietnam. More and more young people, especially those born after the independence in 1975 (aged from 22-35 in the study) and growing up during "Doi moi" (Open market economy - based reform initiated in 1986) tend not to choose teaching profession. The underlying reason is that the open

market economy has opened up more job opportunities with higher income than teaching job (Hoang 2002). However, for the people who were born earlier than 1975 and grew up before the "Doi moi", among limited choices for jobs, teaching was considered the noblest profession which always gained respect from people.

(b) Teachers' attitudes by their age, general teaching experience, and gender

For the purpose of statistical analysis, the age group "over 56" of five teachers and experience group "over 31" of 31 teachers were not included in the test because of very small number. The Kruskal Wallis test was used for the variables of age and general teaching experiences. There was no evidence found of difference in teachers' attitudes towards inclusion in terms of their ages ($p = 0.960$, $DF = 3$), also of their general teaching experience ($p= 0.846$, $DF = 3$). However a trial was made to gain a rough "sketch" of IE attitudes by comparing the mean scores. Both groups of independent variables indicated that young teachers in their early teaching profession were slightly more positive to IE than the other groups (Appendix 5.1;5.2). Cochran (1998) shared the same finding. He assumed that (i) the impact of teacher education programs and philosophies regarding IE on the new teachers; (ii) the new teachers were still idealistic and impractical because of little experience. Given there were 31 out of 34 young teachers with no training on SNE in this study, the second assumption seemed applicable to this group of young teachers.

In terms of gender, there was no difference found between female and male teachers in relation to their attitudes towards inclusion ($p = 0.395$, $Z = 0.851$, Mann-Whitney $U = 29759.87$). In other related research (e.g., Muleya 2006) where the female teachers are normally found more positive, it is their mother nature to lend the support for an explanation for the result. However, respondents' gender is not normally the predictor for their attitudes (Avramidis et al.2000).

4.2.1.2. Responsibilities and Contacts with students with disabilities

Various researchers show that contact with students with disabilities is a significant factor in changing attitude. All respondents of the current study had contacts with them. The research went further by investigating whether attitudes would be different

provided different time spent in classroom with students with disabilities among the teachers with different responsibilities.

Table 4.9: Responsibilities and Contact with Students with disabilities

			Respondents' responsibilities			
			School head	Class head	Subject teacher	Total
Contact with SwDs	Under 2 period/week	N	27	6	172	205
		%	5	1	31	37
	2 - 3 periods/week	N	0	58	47	105
		%	0	10	8	19
	4 - 5 periods/week	N	5	165	81	251
		%	1	29	14	45
Total		N	32	229	300	561
		%	6	41	53	100

As for the respondents' responsibilities, there was no evidence found of differences in attitudes towards IE among school administrators, head teachers, and subject teachers ($p = 0.108$, $DF = 2$). However, the mean ranks retrieved from Kruskal Wallis H test showed that the school administrators seemed the most positive to inclusion (mean rank =336.28). The group of class head teachers seemed the least positive towards inclusion (mean rank = 272.01). This result was expected. Since the school heads have a special responsibility in promoting positive attitudes throughout the school community (UNESCO 1994). Thus, they were often the first group at school level receiving IE awareness raising courses before the INGOs' inclusion projects started in the schools (FBB 2006, Villa et al.2003). Then they were responsible for transferring this knowledge to teachers in their schools. Additionally, as seen in Table 4.9, the school administrators had the least direct contacts with students with disabilities than the class head teachers. Thus, their more positive attitudes were politically understandable.

Class head teachers and subject teachers

The Independent sample t-test indicated no difference between the attitudes of the class head teachers and the subject teachers ($p = 0.706$, $t = 0.377$, $DF=527$). As mentioned earlier, the head teachers take two responsibilities; i.e., administration coordinating for one class assigned by the school administrators and subject teaching (possibly for more than one class and with different grade levels). Thus they were

expected to be less positive towards inclusion than subject teachers in terms of workload. However, it was likely that the LS students who were independent as the nature of adolescence (Le et al.2001), helped to reduce administrative job for their class head teachers. This result was even more surprising when comparing the contact time that both teacher groups had with students with disabilities in a class per week. As seen in Table 4.9, three forth of the teachers working 4-5 periods per week were the class head teachers. While 84% teachers with maximum two periods per week were the subject teachers.

As for teachers with different contact time with students with disabilities regardless of the responsibilities, there was also no evidence found of difference in their attitudes towards inclusion ($p=0.146$; ANOVA = 1.931; DF=2).

The significance tests were made of the relationships between the sub-scale "Classroom behaviour of students with disabilities" and the teachers with different responsibilities and with different direct contact time with students with disabilities per week. There was no evidence found of difference in the attitudes towards the students' behaviours.

It should be noted that the variable concerning "contact with students with disabilities" was deducted from the subjects that the teachers taught. Thus, it merely helped to reveal their working time per class but not factual workload per week. That might explain why there was no difference found in this research. Another research in Vietnam showed that since the implementation of the new curriculum in 2002 as mentioned earlier, 43 % of teachers reported that they spent more than three non-contact hours per week for lesson planning and marking students' written tests equal to approximately four teaching periods in class (Tran 2003). Addition to totally 14 periods per teacher per week as assigned by MOET and teaching under the circumstance of big class size with 40-50 students in average, even 60 students in some places (Tran 2003), teacher's burnout was likely to exist. This issue is found to relate significantly to teachers' attitudes towards inclusion in previous studies (Talmor et al. 2005). In a related research by Avramidis et al. (2000), teachers also stressed the need for reducing class size to 20 students and more non-contact time for

daily planning for inclusion. The issues were found influential to their attitudes towards inclusion. In the light of change model, Thousand et al (2005) explained that time for planning especially with colleagues is one incentive that common and highly valued by teachers engaged in a reform, which helps to minimize teacher's resistance to process of change towards IE. On the earlier discussions based on the analysis of the total attitude scale and sub-scales, it is assumed that the new culture and practice of IE are unlikely to come into the school life of the teachers. Reflecting on what Thousand et al.(2005) said earlier, it might be due to a lack of incentives created by the schools, or the INGO projects to engage the teachers in the change process. That may explain why there is no differences in the attitudes towards inclusion among the teachers despite the discrepancy in the workload and extra roles. Currently, there are few national or local incentives established to encourage change to a more inclusive service delivery in Vietnam (Villa et al 2003). At the same time, the nature of LSE with the discipline-based approach weakens the collaboration among the teachers. (Megrab 2003). If this strategy is taken into consideration by the schools and teachers, a vision of IE will be communicated and gradually be into practice.

4.2.1.3. Experience of teaching students with disabilities

At the time of this survey, the schools in this study were implementing IE projects over a three years period. Following this timeframe, the original data provided by the respondents regarding their experience with students with disabilities was recoded into two different variables as seen in Table 4.10. The vertical variable focuses on the experiences by project timeframe. The horizontal one provides the detailed data.

Table 4.10: Experience of teaching students with disabilities

		Experience working with students with disabilities						
		1 year	2 years	3 years	4-8 yrs	9-14 yrs	> 20 yrs	Total
SNE experience within project time	N	179	176	109	0	0	0	464
	%	32	31	19	0	0	0	83
SNE experience before project	N	0	0	0	68	26	2	96
	%	0	0	0	12	5	0	17
Total	N	179	176	109	68	26	2	560
	%	32	31	19	12	5	0	100

Data shows that the teachers had varied experiences with students with disabilities from a minimum of one year to a maximum of more than twenty years. There is only a small number of teachers (17%) reporting that they had experience with students with disabilities long before their schools started the IE projects. However, it does not mean that they worked at special schools before. There were other possible explanations for their long experience with students with disabilities. It can be that (i) the schools might have students with mild disabilities like physical problems for instance, who were accepted by the schools; (ii) there might be students without any disabling condition but were perceived by their teachers as students with disabilities because of having short-sightedness as stated in the School Lists of Students with Disabilities provided for this study; and (iii) there were some schools, especially schools in the Southern and Central parts, which at sometime in the past received students with visual impairments within integrative settings (informal data provide by the school administrators and supported by crosstab analysis- Appendix 6.1).These arguments could explain why the teachers had from 4-20 yeas of experience.

For the purpose of investigating the impact of change brought by INGO inclusion projects on teachers, only one test was taken to compare the attitudes towards inclusion of the teachers with experience with students with disabilities before and after project time using Mann-Whiney U test. A difference of attitudes was found between them ($p=0.016$, $Z = 2.415$- Appendix 6-2). Yet the strength of this relationship was found weak ($r = 0.1$). It should be noted here that the sub-sample were not equal. This result should be treated with caution.

Teachers with experiences before the project time showed more positive attitudes towards inclusion than those with experiences within project time (mean rank = 316.74 for the former and mean rank = 273 for the latter). Theoretically, this result was expected because of the longer the teachers' experience, the more positive attitudes towards inclusion. However, taking three assumptions above regarding why teachers might have experience with students with disabilities longer than the project time, there was likely to have another interpretation for this difference. Firstly, if the first and the second assumptions were the case, it could be seen that these students

exposed no learning difficulties. Thus the teachers' teaching was going with flow even without their notification of students' conditions as they perceived it in this survey. Secondly, integrative settings as mentioned in the third assumption did not require any adjustment in the part of teachers to accommodate students with disabilities. In both cases, teachers actually did not need any changes in their practices. This "no change" effect brought more positive attitudes in the part of these 96 teachers. Resistance to change was normally seen in the initial stage of change (Thousand et al.2005), which might be reflected in the less positive attitudes showed by 83% of teachers with experience with the IE projects in this study. As explained by Avramidis et al. (2000), implementing an inclusive programme, especially at an early stage is likely to put considerable pressure on teachers due to necessary significant restructuring requirements. Thus their attitudes would be less favourable about inclusion.

4.2.1.4. Teacher education

Appropriate preparation of all educational personnel stands out as a key factor in promoting progress towards inclusive schools (UNESCO 1994). Fullan et al (1992) states that a successful change involves learning how to do something new. The model of complex change informs us that when knowledge and skills are lacking, people involved in this process would experience anxiety (Thousand et al 2005). However, the analysis and discussion of the overall attitude scale and sub-scales in the previous section indicated that the teachers were positive about IE. Nevertheless, a lack of knowledge and skills seemed to reveal as a result of their understanding of general philosophy of IE and their perceived abilities of teaching students with disabilities. What follows is the investigation of the possible role played by the teacher training in the teachers' attitudes. Of 561 questionnaire teachers, 343 of them (61%) had no training. Table 4.11 presents the data of 218 trained teachers (39%).

Table 4.11: Teacher training on SNE and IE

Training content			Time of training on SNE				Total
			1-4days	1 week	within 2 weeks	2 weeks +	
IE General phylosophy	training during summer	N	7	26	10	1	44
		%	8	30	11	1	51
	School-based training	N	32	4	3	1	40
		%	37	5	3	1	46
	Other	N	3	0	0	0	3
		%	3	0	0	0	3
	Total	N	42	30	13	2	87
		%	48	34	15	2	100
General SNE knowledge	training during summer	N	1	26	24	2	53
		%	2	41	38	3	84
	School-based training	N	3	2	5	0	10
		%	5	3	8	0	16
	Total	N	4	28	29	2	63
		%	6	44	46	3	100
Disabiliy-based knowledge & skills	training during summer	N	16	14	8	8	46
		%	24	21	12	12	69
	School-based training	N	10	7	3	0	21
		%	15	10	4	0	31
	Total	N	26	21	11	8	67
		%	39	31	16	12	100

Descriptions of teacher education

As can be seen from Table 4.11, teacher education programme was mostly in-service training organized in two main ways: training during summer holiday and school based training or training during school year. No teachers reported that they had pre-service training in both SNE college degree (3 year course) and SNE university degree (4 year course). Three teachers reported other kinds of training which they specified as attending a conference on ten year review of IE implementation in Vietnam and visiting IE model.

Of 218 teachers receiving training, more than half of them (66%) participated training during the summer. It was understandable because of not much workload during this time motivating the teachers to attend despite the longer training time. Table 4.11 shows that 46% attended a full week training, and 29% got trained within two weeks. Most of training during school year normally was organized in less than one week in which 72% teachers attended. One important finding was that 91% of the youngest

teachers aged 22 to 25 years had no training. Nevertheless, as analysed earlier, they showed a little more positive attitude towards IE than other older colleagues.

Regarding training contents, training as reported in the project documents by INGOs focused on three major themes as can be seen from the Table 4.11. Among 218 trained teachers, the majority of them (40%) had training on general philosophy of inclusion. As discussed earlier, this training was perceived by INGOs as raising awareness for teachers about the important role played by inclusion in the development of children with disabilities. In the light of the model of change, this kind of training aimed at generating vision, knowledge and skills for teachers in the process of change. Last but not least, it acted as an intrinsic incentive, which motivated teachers by the positive benefits of inclusion brought to students with disabilities. However, the result of the "understanding general IE philosophy" sub-scale suggested that the teachers seemed not to have incomplete understanding of inclusion. As they perceived, inclusion is more for the social benefit of students with disabilities but not for students without disabilities.

One issue was worth notifying is that despite 343 non- training teachers reported in this study, it did not mean that there was no training opportunity for them. In fact training provided by the projects were available; however, its voluntary basis might reduce the number of teachers participating. Taking into account 68% of respondents were female, there were many family commitments expected towards them. In combination with school workload as mentioned earlier, lack of commitment for professional development could be understandable. The difference was also spotted among different locations. Data showed that more urban and suburban teachers got trained than their colleagues living at small town or rural areas. The latter made up of 16% of group receiving training. Shortage of teachers and two working shifts per day existing in most of rural and small town schools could explain their disadvantages.

Lack of training among teachers was also found at Vietnamese primary inclusive schools, which compared to LS schools had longer history of development in Viet Nam. Nguyen (2006) revealed that while training and teachers' self-confidence of

knowledge and skills positively well related, 60% of non-trained teachers did not feel self-confidence.

Teachers' attitudes and training on special needs education

Independent sample t-test was taken to find possible differences in attitudes towards IE of students with disabilities between teachers with and without training. There was no evidence of difference in attitudes towards inclusion of the trained and non-trained teachers ($p = 0.086$, t-test = -1.722, DF = 559). This finding was opposite to the findings by Bradshaw (2006); Kimani (2006); Opdal et al. (2001); Avramidis et al. (2000); Lanier et al (1996). Particularly, the neighbouring Brunian in-service teachers who had completed at least just one course on special and IE had a much more positive attitude towards students with disabilities (Bradshaw 2006). It seemed that the in-service training provided to 218 teachers in this research had not created significant changes in trained teacher's attitudes in comparison to non-trained teachers. A seemingly lack of time and commitments of the teachers as explained above could lend support for this finding. Training courses provided by the projects were not obligatory, thus teachers might choose not to participate.

In the light of the theory of change, this seemingly lack of commitment can be understood in different way. According to Fullan et al (1992), there are two kinds of teacher development process namely innovation–focused period and the total teacher and the total school period. The first process implied relationship between teacher development and implementation of innovation. The data provided as well as the characteristics of sampled schools showed that teacher development in this study had the characteristics of innovation-focused period. As described by Huberman and Miles (1984), it was as a result of assistances provided in the forms of external conferences, in-services training sessions, visits, access to external consultants (Fullan et al, 1992). In addition to its usefulness, the innovation–focused paradigm also created hindrance to the innovation-effectiveness. As identified by Pink (1989), these shortcomings included lack of awareness found in project initiators regarding limitations of teacher and school administrator knowledge about how to implement the project, and project members' trying to do too much with too little support (Fullan

et al, 1992). While the most important issue was the voice of teachers, yet was absent from this process. Their needs and purposes as teachers were not taken into considerations when organizing training courses. Their lack of commitment to in–service training might be consequent. This view is shared by other researcher e.g., Paterson (1994) who observed that teachers appear to be the most "powerless" group in the decision making process, despite the fact that they are the individuals most responsible for implementing inclusion decisions (Paterson 1994). "The voice to be heard", according to Thousand and Villa (2005), acts as an incentive in the process of change. Without which resistance would occur during change. And when teachers lack motivation for training, anxiety might be experience due to lack of skills.

As for 218 trained teachers in the current study, different analysis with different training related variables were made to see the possible differences in their attitudes towards IE. Yet the trained teachers shared their positive attitudes towards inclusion. However, by comparing means of those teachers who got training in different contents revealed that teachers with training on disability–based knowledge and skills had the most positive attitudes (Appendix 6.3). This kind of training was designed for teachers dependent on students' types of disabilities that they dealt with. It could be said that training which could assist teachers in their daily practices was likely associate with their positive attitudes. From the viewpoint of change theorist, handy knowledge and skills help to release involving personnel in change process from anxiety and make them self confident in what they are doing (Thousand et al.2005).

These findings indicate that the in-service training provided by the INGO projects may not sufficient to make change in the teachers' culture and practices as discussed in the previous section. This raises a requirement of a holistic approach to IE in general and teacher education for inclusion in particular where universities also joined forces to bring about real change in the education system (Bradshaw et al 2006, Ali et al. 2006). Another issue was the teachers' needs regarding their professional development. As the "clients" of the change system, they should be asked about 'what', 'when', and 'how' training needs should be organized for them rather than fixed training contents exposed to them from the external project action

plans. A school moving towards change is a learning school. Thus, learning for each member of that system should be learner–centred. Changing the school culture, to be effective, must meet the real needs of the "client system" (Dalin et al. 1993).

4.2.2 Student with disabilities

4.2.2.1. Number of the student's disabilities

The levels of students' disabilities were found to influence teachers' attitudes towards inclusion and integration in previous studies: the milder the student's disability, the more positive the teacher's attitude is towards their education in regular schools and vice versa (Opdal et al. 2001; Yuen et al.2001; Smith, 2000; Avramidis et al. 2000; Lanier et al 1996). However, variable regarding students' levels of disabilities was not investigated in the current research due to the weak collaboration between education sector and health sector in relation to the diagnosis and assessment of disability in Vietnam (Nguyen et al 2006; Lancaster et al. 2004; Nguyen 2002; Le 2000a, 2002). Instead, this study focused on students' kinds of disabilities and the number of disabilities that the teachers were exposed to. It should be noted here that the latter variable dealt with the number of kinds of disabilities that teachers had experience during the time of their teaching students with disabilities not the number of students with disabilities at the time of the study. The result is presented below.

Table 4.12: Number of Disabilities that teachers' exposure to

		N	%
Teacher's exposure to different types of disabilities experienced by students (in number)	exposure to 1 impairment	280	50
	2 impairments	166	30
	3 impairments	82	15
	4 impairments	30	5
	plus 5 impairments	2	0
	Total	560	100

Five was the maximum number of disabilities that teachers had experience with, but there were very few teachers with this experience. For analysis, the groups of teachers exposing to three to five kinds of disabilities were rearranged in one group.

One-way ANOVA was used for this significance test among three groups: teachers exposing to one type of impairment, to two impairments, and from three to five impairments in relation to the attitudes towards inclusion. An evidence of difference

in IE attitudes was found among them (p = 0.04, F = 3.227, DF= 2). However, further data analysis showed difference merely existing between teachers with exposure to one type of disability (M = 60.68, SD = 6.485) and teachers with from three to five types of disabilities (M = 58.99, SD = 6.622). This relation was found to be weak (r = 0.120) (Appendix 7.1). Despite weak relationship, this result showed that teachers had more positive attitudes when they exposed to fewer types of disabilities experienced by their students.

4.2.2.2. Students' kinds of disabilities

There were seven variables regarding the types of disabilities experienced by students in which six variables were predetermined and the last variable named "Hidden disabilities" which is explained in 3.5.1d.

Table 4.13: Students' disabilities

	Experience		No experience		Total	
	N	%	N	%	N	%
Visual Impairment	172	31	388	69	560	100
Hearing impairment	90	16	470	84	560	100
Intelectual disability	334	60	226	40	560	100
Physical disability	186	33	374	67	560	100
Language disability	185	33	375	67	560	100
Multi disability	19	3	541	97	560	100
Hidden impairment	4	1	555	99	559	100

As showed in Table 4.13, the results of this research were consistent with the national data of students with disabilities as introduced in 1.4, which showed that the children with intellectual disability and then children with physical disability and children with visual impairment in sequence made up the three biggest groups of children with disabilities in Vietnam. Efforts were made to compare the attitudes of the teachers who had experience with students with each of the above mentioned disability with those who did not exposed to those students. Because there was unequal variance between sub samples of teachers who had and did not have experiences with certain disabilities, Mann-Whitney U was used for these significance test. Evidences were found of differences between three out of seven listed groups. Details are as follows.

There was no difference found between teachers with and without experience with students with physical disability, language disability, multi-disabilities, and hidden disabilities (with p = 0.287, p = 0.170, p=0.410, p = 0.471 respectively).

Teachers who taught students with visual impairment, hearing impairment, and intellectual disabilities were found different in their attitudes towards inclusion in comparison to their colleagues who did not teach these groups of students. Specifically, the results for attitudes towards students with visual impairment (p=0.03, Z = 2.165, Mann-Whitney U = 29550), with hearing impairment (p=0.010, Z = 2.558, Mann-Whitney U = 17515), and intellectual disability (p < 0.001, Z= 4.691, Mann-Whitney U = 28942.500–Appendix 7.2;7.3;7.4). Interestingly, these groups did not share the same direction. 172 teachers with students with visual impairment possessed more positive attitudes towards inclusion than 388 teachers without experience with this group of student with mean ranks 302.70 and 270.66 respectively (the higher the mean rank, the more positive the teacher' attitude). The effect size of this relation, however, found very weak (r= 0.09).

On the contrary, 90 teachers with students with hearing impairment were less positive than 470 teachers who did not teach students with these kinds of disabilities. However, this relation was found slightly weak (r= 0.1). A little higher effect size (r= 0.198) of the same direction was found between 334 teachers with students with intellectual disability and 226 teachers without experience with these students.

The same finding relating to teachers of students with visual impairment was found in the study by Opdal et al (2001). Despite absolutely smaller number of teachers with students with intellectual disability in compared to the sample of this study, Palestinian teachers also shared the same "less positive" attitudes towards inclusion of these students. However, Palestinian teachers of students with hearing impairment, in contrary to the current study, were more positive towards inclusion.

There were explainable reasons for these differences in Vietnamese teachers' attitudes regarding students' kinds of disabilities. Regarding teachers of students with visual impairments, two issues could lend the support for their more positive attitudes

than their colleagues who did not teach this group of students. Firstly, in-service training which focused on disability-based knowledge and skills had provided teachers with students with visual impairments with knowledge about visual impairment, characteristics of students with visual impairment, and skills in Braille and its applications as explained in 4.2.1.6, which helped to prevent them from anxiety as pointed out by Thousand et al. (2005) when teaching these students.

The second possible explanation, which to some extent was quite controversial to the above reason, was the "misunderstanding" about visual impairment found among the teachers in some localities. As explained above, in these schools, students with short-sightedness who were normally identified by glasses were perceived by teachers as "visual impaired". This assumption was found mostly in rural and town locations, where as reported by school administrators there were no official disability diagnostic and assessment for students. A very interesting traditional belief shared among Vietnamese people was that a person especially school age children who wears glasses is a good learner. The assumption behind this belief was that learning too much leading to short-sightedness. Bearing such assumptions in mind combined with the factual experience that these students totally had no learning difficulties might lead to their positive attitudes in compared to their colleagues without having students with visual impairments. In contrast, teachers with students with hearing impairment reported that they had little training on obtaining skills in Sign Language, which was the barriers, at least in this study, in guaranteeing that teachers were not self-confident of teaching them.

As mentioned above, national data as well as data in this study showed that students with intellectual disabilities were found with highest number of children attending regular schools partly because of their less obvious difficulty than their peers with visual impairment for instance. If this explanation provided by Nguyen (2006) was shared with the teachers in this study, positive attitudes towards inclusion of these students might have expected. However, according to Opdal et al (2001), the fact that these students are identified as having disabilities by the research could lead the

teachers to a realization that these students need educational strategies that they feel they do not have skills for it.

It should be noted here before ending this section that given the lack of understanding about the students' disabilities happened in some schools as mentioned earlier, the question of validity and reliability of the information provided by teachers about the disabilities their students had remained a challenge to the researcher.

4.2.3 Environment-related factor

According to Dalin (1993), environment is important to every school as a unit of change. He defined environment as the *administrative* links to school authorities, as well as the many informal links with homes, organizations etc…in the community. This link is more important in inclusion. Meaningful inclusion is not only educational inclusion but social inclusion as well. Thus, without a close cooperation with homes and community, schools cannot provide adequate learning opportunities (Dalin et al 1993). What follows is presentation and discussion about teachers' attitudes towards inclusion in relation to environment related factors including type of school setting in terms of regional and location differences, support, and school relationship to parents of students with disabilities.

4.2.3.1. Regional difference and school settings

Table 4.14: Geographical distribution of respondents

			Location				
			Urban	Suburban	Town	Rural	Total
Region	south	N	54	0	20	57	131
		%	10	0	4	10	23
	central	N	37	0	127	0	164
		%	7	0	23	0	29
	north	N	0	171	0	95	266
		%	0	30	0	17	47
Total		N	91	171	147	152	561
		%	16	30	26	27	100

(a) Regional difference

It should be noted from Table 4.14 that the group sizes were unequal. Of three regions, nearly half of the respondents were from the Northern part. Thus any result retrieved from this variable should be treated with more caution. Kruskal Wallis test

was used for this test. There was evidence of difference existing among Vietnamese teachers living in the North, South and Central regions ($p< 0.001$, DF = 2, Kruskal Wallis = 40.431). The further test however revealed that there was difference of the South with the North, Central parts but not between the former ($p = 0.370$, Z=896, Mann-Whitney U = 20691.500). The relations between Southern teachers and each of the other groups were weak. ($r= 0.25$ for the South-Central teacher group relation and $r = 0.276$ for the South – North teacher group). The mean scores showed that Southern teachers possessed more positive attitudes towards IE (M=62.74), SD = 5.252, N = 131) than their colleagues in the Central (M = 59.68, SD = 6.377, N = 164) and in the North (M = 58.91, SD = 6.742, N = 266- Appendix 8-1).

The context for the development of IE at these regions could reveal possible explanations for these differences. Firstly, of two Southern provinces in the current study, one of them had the provincial IE resource centre, which played a very active part in the INGO funded project. As mentioned elsewhere in this study, following the Salamanca Framework, many special schools/centres in Vietnam have been transferred to IE resource establishments to support the local schools in terms of providing training especially disability-based knowledge and skills. The above Southern centre, due to its position at the central authority (provincial level), was likely to create the political effect to schools at the district level.

From the cross-cultural point of view, Huu Ngoc, a well-known cultural researcher affirmed “One cannot deny the different mentalities of northern and southern people…However, explanations (for the difference) should be sought by carefully considered history” (2004, p.505). It sounded that finding differences among regions might exceed the efforts of an educational research.

(b) School setting

As seen from Table 4.14, the number of respondents distributed quite equally across suburban, town, and rural areas but not in urban area. To some extent, this result was consistent with the national rate of population distribution showing that 27.12%, and 72.88% of population living in urban and non-urban areas respectively (GSO 2006).

One-way ANOVA test gave the evidence found of difference among four school settings relative to teachers' attitudes ($p < 0.001$ (DF= 3, F = 6.883). Further investigation revealed that evidence found of differences between the urban teachers and their colleagues in suburban, town and rural areas with $p \leq 0.001$ for all three tests but not between any of the latter. The effect size of correlation of group of urban teachers with other groups in terms of their attitudes with descending values were with rural teachers (r = 0.285, Z = 3.904, N = 243), with suburban teachers (r = 0.270, Z = 4.379, N = 262), and lastly with teachers living in small town (r= 0.253, Z = 3.904, N = 238). Mean score comparison showed that urban teachers were the most positive towards inclusion of students with disabilities (M = 62.75), and the least positive opinion was found among rural teachers (M = 59.23). The mean scores among sub-urban teachers, teachers in town, and rural teachers were almost the same. It should be noted that the number of urban teachers was unequal to the other groups. The result, thus, must be treated with caution (Appendix 8-2).

Larrivee et al.(1979) found no apparent differences among teachers' attitudes in urban, rural or suburban areas towards mainstreaming of students with disabilities. They observed that their finding was opposite to the previous research in which urban teachers exhibited more negative attitudes (Larrivee et al. 1979). Opdal et al (2001) also agreed in this sense. They reasoned for the community oriented nature of rural people that made people closed to each other. And thus rural teachers showed more empathy to students with disabilities because they knew each other. Community oriented culture was prominent feature of Vietnamese society that was considered as the backup for inclusion development in Vietnam regardless of locations. There were three possible reasons for the opposite result found in this study. Firstly, as mentioned earlier in 4.2.1.6, more urban teachers received training than their colleagues living in rural and town areas. Secondly, as information shared by school administrators of one urban city in the study, included students with disabilities, mostly with visual impairments received material support (e.g., Braille textbooks) accommodating their learning. At the same time teachers received technology support in translating students' test written in Braille, which released them from student assessment

concerns as revealed by other teachers in open-ended question (see later part). Lastly, data revealed that there was big difference regarding the number of disabilities exposing to urban teachers and rural teachers. While urban teacher (87.9%) had experience mostly with one kind of disabilities, 67% rural teachers exposed to more than one, even four and five types of disabilities. The finding in 4.2.2.1 revealed that teachers exposing to one type of disability were more positive than teachers with experience with more than 3 types of disabilities.

It could be said that in this move towards inclusion, the change factors: knowledge, skills, and resources were more advantageous to urban schools than in non-urban schools, especially in rural area, which could help to release its implementers from anxiety and frustration and thus could guarantee to reach the desired change.

4.2.3.2. Support

Supports for IE could be understood as resource variable in Ambrose's model of complex change, which were transferred in terms of physical, organizational, and human kinds. When resources were missing, frustration would happen on the way of change (Thousand et al. 2005). The availability of physical and human support were consistently found to be associated with attitudes to inclusion in related studies (Avramidis et al. 2002). What follows is to find answer for "how teachers in this study thought about the support for them in IE process".

There were two items seeking teachers' evaluations of administrative support, and support services for accommodating students with disabilities (e.g., resource SNE teachers, appropriate instructional materials). The results revealed that teachers evaluated very low for both of these support. The mean score of administrative support was 1.87 (SD = 1.321, N = 561), which was between value "zero" (for no support at all) and value "very low" level of support. For the latter, the mean score was a little bit higher (M= 2.09, SD = 1.293, N = 559, which was between "very low" and "low" level of support for accommodating student's learning. These two variables were then summated to create support scale due to high correlation coefficient $r = 0.629$ ($p < 0.001$). The scale showed very low level of total support

received as evaluated by teachers (M=3.95, SD=2.341, N=559-Appendix 9-1). It could be concluded that teachers did not think they received sufficient support, especially when they belonged to IE projects.

Teacher's attitudes and support received

There was relationship between teacher's evaluation of support provided to them and their attitudes (p= 0.046- Appendix 9.2). However correlation was weak (r= 0.084). Yet the positive tendency of this relationship could be implied that the more support teachers received the more positive they were towards inclusion. This finding went in line with previous research as observed by Avramidis et al (2002).

Regular lower secondary school teachers in this study shared the same view regarding support with their colleagues at inclusive primary schools in Vietnam mentioned above. Despite 97% of teachers supporting IE, they were concerned about administrative support.34.7% of them were uncertain and 27.3 % did not agree that they got this support. Approximately the same number of them showed the same opinions of physical support (instructional materials, learning aids) for inclusion to be effective (Le 2000b).

For children with disabilities a continuum of support should be provided (UNESCO 1994). However, it could be said that lack of support was the shared concerns by the teachers of different school level nationwide. Lack of administrative support, i.e., policy and legislation backup) was likely to have more influence to teachers who revealed through their extra comments (detailed in next section). This leads to a situation in which provincial/district educational institutions lack vision and expertise on how to implement IE (Lancaster et al.2004). Given what Lancaster et al. observed in Vietnam, it could be said that there might be already confusion and anxiety existed in the light of Ambrose Model. This exposed the need for the authorities to pay more attention to developing guideline on IE implementation and allocation of adequate local resources (Lancaster et al.2004). Otherwise, involved people will experience also frustration.

4.2.3.3. Parental participation

Dalin (1993) stated that a productive school has mutual and open relations with the environment, and part of which is the link with home. In this study, teachers were asked to evaluate participation of parents of students with disabilities in their children's education. The result showed that teachers reported low parental participation (M = 2.94 – in the range between 2 for "very low" to 3 for "low", SD = 1.323, N = 559). This result was then more supported by the teachers' extra comments (more details in the next section) where they said that parents did not "take care" of their children's education.

Teachers' perception about parental participation positively correlated with their attitudes towards inclusion. The effect size of this relation however was found weak ($r = 0.16$, $p < 0.001$- Appendix 9.3). However, due to the low parental participation as reported, to this point, it should be merely concluded that teachers' attitude would be more positive in case of the ascending tendency of parental participation. This result despite being positive, showed the dilemma as Dalin (1993) put it, between "openness" (referred to school) and "protection" (referred to parents). Protection in this sense can be found among Vietnamese parents who are very much in favour of special education for their children instead of IE. They feel that special education teacher has adequate capacity and more time for their children (Lancaster et al. 2004). It should be the case of parents in this research. Another reason is that not all the parents are active in their relationship to schools. Especially the older the children, the less contacts parents have with school (Le et al.2001).

4.3 Analysis of open-ended item

As described in the previous chapter (3.5.4), there were 85 teachers (15 %) providing comments and issues in the final section of the questionnaire. After analyzing the content, the information that teachers provided was coded into two categories namely general concerns about inclusion implementation and support for teachers. Despite the small numbers of answers, to some extent the information helped to understand the teachers' attitudes towards inclusion. The previous analysis and discussion on the

teacher attitude towards inclusion scale and sub-scales indicated that the teachers generally were positive about this approach of education for students with disabilities. However, their understanding of inclusion and their perceived abilities to teaching students with disabilities were seemingly incomplete and controversial. The result of the analysis of these open-ended data revealed that the teachers had worries and concerns about how to implement inclusion in their practical settings. As a result, in the extreme, they thought special education was better for students with disabilities. The less extreme negative attitudes were prone to inclusion of students with mild disability conditions. As the respondents pointed out, these were students with physical impairments, with mild hearing, or with visual impairments. They showed their disagreement with the inclusion of students with intellectual disabilities and multi-disabilities because of their behaviour problem and time consuming on the part of teachers. Other teachers suggested. integration model in which students with disabilities would learn in special classes located in the regular schools or in special schools and only integrate with regular students in extra curriculum or social activities in the community.

Many teachers, especially the subject teachers showed their concern that they did not have time to pay attention to the students with disabilities in their class. They emphasized that 45 minutes per lesson “was not enough” for them to take extra care to their students with disabilities. This information supports the findings of the sub-scales in the previous section. Assessment of students with disabilities’ performance was also popular concerns among respondents having extra comments on this research. They advised there must be a guideline of how to assess performance of this group of students. The assessment made by the results of written tests currently exposed a big challenge for students with disabilities. This prominent way of testing requires students to learn by heart the subject content at home prior to the test (Tran 2001).

The open-ended item also revealed that the teachers felt being overloaded with many responsibilities imposed on them every new academic year. They gave the evidence on this including the current inclusion projects, the implementation of reformed

curriculum accompanied with new ways of instruction, and the Prime Minister's Directive about a so-called anti-"seated in wrong class" (the situation where a teacher granted eligibility to continue the next grade for students with under standard attainment) (MOET, 2007). Some teachers stated that this Directive confused them on how to assess students with disabilities so as not to violate the directive. As discussed earlier, the LS teachers seem to struggle with the dilemma between the school effectiveness on the one hand and the inclusion of students with disabilities on the other hand. This reality exposes a need of thorough visioning and action planning, which makes clear that inclusion is the interpretation of the current reform moving towards a learner-centred approach, which was underlined in the Salamanca Framework as the way to ensure the successful schooling of all children.

Many respondents pointed out their needs for support. They showed the requirement of having a special teacher in the class. Some teachers required classifications of students' disabilities for regular education and for special education. It was touched on earlier that for IE to be successful, it is the school settings themselves to adjust to meet the needs of students with disabilities regardless of their disabilities. The teachers' needs for such support, according to Ainscow (1997), implied the integration efforts, which are dependent upon the importing of practices from special education. Others emphasized the financial support for inclusive teachers, which was unavailable. This increased the lack of motivation among the teachers. This data was relevant to the results of the support in the questionnaire, which were evaluated to be very low by the teachers. The finding from the questionnaire and from the open-ended item indicated that when the support were not available, they were likely to be in favour of full special education where it was assumed that support was available for students with disabilities. Avramidis et al (2000) claim that the complete absence or inadequacy of some or all of the support would mean that the placement of a student with disabilities is unfeasible. In the light of the model of change, the lack of incentive in terms of funding and support in terms of human resource as suggested by data of this study may create the resistance and frustration to change.

5. Chapter 5: Conclusions and implications

5.1 Conclusions

This study has made an effort to investigate the current status of IE in Vietnam on the process of bringing changes to the lives of children with disabilities through regular schooling. The survey with 561 teachers of twenty-four lower secondary IE project schools funded by the INGOs reaches to some following conclusions:

- In addition to a slightly higher number of teachers with positive attitudes than those with negative attitudes, there were nevertheless approximately 50% of them having neutral attitudes towards inclusion. This finding suggested that LSE teachers had both positive and negative attitudes towards including students with disabilities. These attitudes varied when it came to the issues of teachers' understanding general philosophy of inclusion and their perceived ability to teach students with disabilities. The former revealed that the teachers seemingly had positive attitudes towards the social benefits of inclusion for students with disabilities but not towards the academic benefits, especially for students without disabilities. There was seemingly a contradiction in the teachers' responses that they had sufficient training and necessary expertise to teach students with disabilities, but they still showed the needs for extensive re-training for IE.

- The inspections of the possible influencing factors found that teachers' attitudes were stronger influenced by the student-related factors than by the teacher-related factors, which were in line with the previous research findings. The only teacher-related variable brought about the difference was their experience with students with disabilities. The findings showed that the teachers with IE experience since the INGO projects started during a period of three years had less positive attitudes than those with SNE experience longer than the project time.

- The student-related variables showed the fewer students with disabilities in regular classrooms, the more positive attitudes of the teachers. The difference was also found where the teachers with students with visual impairment were more positive, while the teachers with students with hearing impairment and intellectual disabilities were less positive in comparison to their colleagues with no experience with those students.

- The environment-related factors tended to influence to the teachers' attitudes towards inclusion. The result indicated that the urban teachers seemed more positive than those in

the sub-urban and towns. The teachers in rural areas were found to be the least positive towards including students with disabilities in their classrooms. Across the country, the Southern teachers showed the most positive in compared to their Central and Northern colleagues. Having some support from the provincial inclusive education resource centre and got trained on disability-based knowledge and skills could explain for the recognition of positive attitudes among the Southern teachers. Support partly from the projects evaluated by teachers was very low, which tended to affect their attitudes towards IE.

- Most of the analysis recognised the important role played by teacher education, especially the in-service training programmes provided by the INGOs in the differences in teachers' attitudes towards inclusion found above. Of three training contents received, the focus on disability-based knowledge and skills was the most likely to have impact on teacher's positive attitudes.

The overall conclusion based on the findings in this study could be that the teachers are shifting their vision of change to an inclusive setting with focus on student-centred approach. Thus, it is difficult for them in such an early stage of IE implementation to avoid the culture and practice of the traditional whole-class teaching which serves the academic demands of the majority students without disabilities. The social outcomes of this process are perceived as the positive benefit only for students with disabilities. Reflecting on the Model of Complex Change, the change towards inclusive schooling in this study can be seen as a half full picture. An empathy-based vision is prone to one side of inclusion, i.e. social outcomes for a half of its beneficiaries- students with disabilities but not the others. Knowledge and skills as a result of the in-service training were not received by all teachers. Incentives and resources evaluated were very low. As the project schools, an action plan was likely to expose to schools from the external project plans. As perceived personally, the findings of this study are insufficient to conclude that this change process is not effective because it is likely to experience confusion, or anxiety, or resistance, frustration, or treadmill or all of them as suggested by Ambrose's Model of Change. Inclusion is a process. For the time being, the change to IE is already underway.

5.2 Implications

5.2.1 Implications for practice

As a finding of this study, teacher education has an important role in forming teacher's attitudes towards inclusion, which should have greater emphasis. In-service teacher training should be organised in a way that can motivate teachers to attend and be willing to apply what they learn to the actual implementation of inclusion of students with disabilities. It is recommended that teachers' voices should be heard in the whole process. Accordingly, training courses make room for critical discussion regarding issues and concepts of inclusion and teaching effectiveness. In-service training programs for teachers at LS schools should focus on cooperative learning and teaching methods, task analysis of skills, and alternative assessment techniques. Pre-service training on SNE or general education should start with building a vision of inclusion which emphasizes that IE does not relate merely to the benefits of students with disabilities but to promote higher education quality for all students.

The support from the resource SNE teachers among other kinds of support was evaluated unavailable by 50 % of the respondents in this study. Upon the Vietnamese Ministry of Education's trend of transferring special schools and special education centres into IE resource centres as observed lately, there should be stronger collaboration between the centre staff and the regular school staff. Observation visits, teaching exchanges and workshops may provide opportunities for regular teachers to discover more about the learning potential of students with disabilities, and to increase their awareness of what may be possible in regular classrooms.

5.2.2 Implications for future study

This study has not yet covered many issues regarding successful IE implementation. Especially when the findings indicated that the teachers' response implied the culture and practice of the traditional whole-class teaching rather than inclusion even if they showed their positive attitudes towards including students with disabilities. The analysis of open-ended item indicated that the actual implementation of inclusion concerned especially the subject teachers. Further research should focus additionally on concerns that normally struggle IE teachers, which can help to reveal teachers' practical implementation of inclusion in their natural settings. The issue still leaves me a confusion after this study.

A lack of knowledge and skills was indicated in this study when 61% of the respondents had no training. However, what knowledge and skills are needed by teachers that can help to minimise their anxiety. There should be further study to seek information from the Vietnamese teachers about what their training needs from teacher education programmes. This approach goes in line with what Fullan (1993) stated "a total teacher, a total school" in which the voices of teachers are taken into considerations in their professional development. The ultimate purpose is to create a feeling of ownership of change among the change agents.

5.3. Limitation and self- reflection

Inclusive education at LSE by the time of this survey was implemented only in the INGO project schools. Yet, the results of this study are insufficient to be generalised to the whole population of Vietnamese regular LS teachers who are teaching students with disabilities. Nevertheless, the findings can be inferred to the population of the teachers of the INGO project schools. However, since one province, one district, and three schools were unreachable as mentioned earlier, the generalization of this research results should be made with caution.

There is a concern which I consider a limitation of this study. As mentioned earlier, the controversy struggling me is whether the teachers' responses indicate a change to IE happening in the schools or IE is merely a linguistic shift but nothing changes in the classroom procedures as Vislie (2003) argued. That is why despite showing positive attitudes to inclusion, the teachers' responses to some survey items reflect their culture and practice of the traditional way of teaching. Another scenario is concerned with a methodological issue which assumes that respondents of attitude survey tend to express politically correct and socially desirable answers to protect themselves. Accordingly, they express acceptance of IE but not be willing to implement it. This concern leaves my study a still unanswered question, which can be satisfied by another research using interview or observation or both to find out the teachers' culture and practice of inclusion.

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Appendices

Appendix 1: QUESTIONAIRE

Instructions

The purpose of this questionnaire is to obtain information relating to what you think about inclusive education of students with disabilities. All information in this questionnaire is provided anonymously and will be treated then analyzed under the framework of this research only. This is not a test. Thus, there is no right or wrong answer. All you have to do is mark a cross by each statement that is true for you.

SECTION A: GENERAL INFORMATION

The information provided will be used only to make the results more meaningful. It will not be used to identify you in any way.

1. Gender: Male □ Female □
2. I was born in:……..
3. Years of experience as a teacher……..years
4. City/District……..…….
5. (You can have more than one choice) I am □ school administrator □ head teacher, □ subject teacher of (Subject) ……..
6. Have you received any training on special needs education No □ Yes □ (If YES, please continue with the items a,b,c)

   a. What kind of training you have received
      □ In- service training during summer
      □ School-based training
      □ Teacher training college degree
      □ Teacher training university degree
      □Other (please specify)……
      b. Total time of training you have received:……
      c. Main contents of the training I have received…….
7. I have had experience of working with students with disabilities for …….years
8. What kind of impairment? (You may select more than one statement)
   □ Visual impairment
   □ Hearing impairment
   □ Intellectual disability
   □ Physical disability
   □ Language disability
   □ Multi-disabilities
   □ Other (Please specify)……

(Make only ONE tick against the statement that best describes your opinion)

	Zero	**Very low**	**Low**	**Average**	**High**	**Very high**
(9) My degree of success to date in dealing with students with disabilities in the regular classroom has been						
(10) My expectation of students with disabilities' performance						
(11) The level of administrative support I have received relative to including students with disabilities has been:						
(12) The availability of additional support services for accommodating students with disabilities such as resource SNE teachers, appropriate instructional materials… has been:						
(13) The participation of parents of students with disabilities in their education (My added part)						

SECTION B: Please make only ONE tick against the statement that best describes your opinion. Once again, there are no right or wrong answers!

1= Strongly disagree; 2 = Disagree; 3 = Agree; 4 = Strongly agree

	1	2	3	4
1. Most of the methods teachers use with regular students in classroom are appropriate for students with disabilities.				
2. The needs of students with disabilities can best be served through special, separate classes.				
3. The behaviour of a student with disabilities generally requires more patience from the teacher than does the behaviour of a "normal" student.				
4. The challenge of being in the regular classroom will promote the academic growth of the students with disabilities.				
5. The extra attention that students with disabilities require will be to the detriment of the other students.				
6. Inclusion offers mixed group interaction which will foster understanding and acceptance of difference.				
7. It is difficult to maintain order in a regular classroom that contains a student with disability.				
8. Regular teachers possess a great deal of expertise necessary to work with students with disabilities.				
9. The behaviour of students with disabilities will set a bad example for other students.				
10. Isolation in a special class has a negative effect on the social and emotional development of the students with disabilities.				
11. The students with disabilities will probably develop academic skills more rapidly in a special class than in a regular classroom.				
12. Most students with disabilities do not make adequate attempt to				

complete their assignments.				
13. Inclusion of students with disabilities will require significant changes in the regular classroom procedures.				
14. Most students with disabilities are well behaved in the classroom				
15. The contact regular students have with included students with disabilities may be harmful.				
16. Regular teachers have sufficient training to teach students with disabilities.				
17. Students with disabilities will monopolize the teachers' time.				
18. Inclusion will promote the students with disabilities' social independence.				
19. It is likely that a student with disability will exhibit behaviour problems in regular classroom setting.				
20. Diagnostic/prescriptive teaching is better done by resource room or special teachers than regular-classroom teachers.				
21. The inclusion of students with disabilities can be beneficial for regular students.				
22. Students with disabilities need to be told exactly what to do and how to do it.				
23. Inclusion is likely to have a negative effect on emotional development of the students with disabilities.				
24. Increased freedom in the classroom creates too much confusion.				
25. The students with disabilities will be socially isolated by regular classroom students.				
26. Inclusion of students with disabilities will necessitate extensive re-training of regular teachers.				
27. Students with disabilities should be given every opportunity to function in the regular classroom setting where possible.				
28. Inclusion of students with disabilities creates confusion in regular classroom.				
29. The presence of students with disabilities will promote acceptance of differences on the part of regular students.				

Please make sure that there was no item left unchecked!
If you have any comment or information that you may want to share with us and you find it interesting for the researcher, please write it down here.

……
……
……
……
……
……....

Thank you very much for your time and contribution!

d

Appendix 2: Mean score of each ATMS scale item

Mean scores of ATMS scale[a]

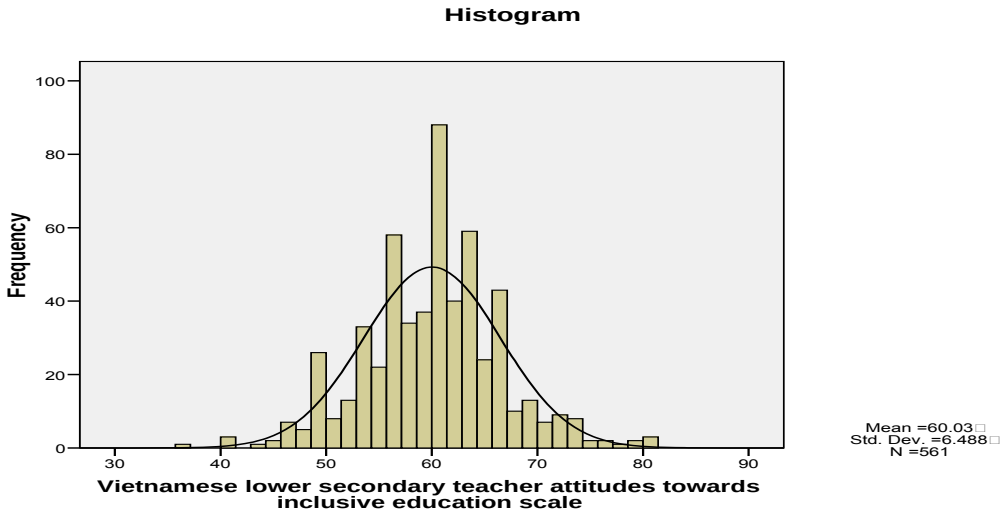
	N	M	SD
1. Most of the methods teachers use with regular students in classroom are appropriate for SwDs	561	2.1	.69
2*. The needs of students with disabilities can best be served through special, separate classes.	560	2.0	.74
3*. SwDs' behaviour generally requires more patience from teacher than behavior of a "normal" student.	561	1.6	.63
4. The challenge of being in the regular classroom will promote the academic growth of the SwDs	561	2.7	.72
5*. The extra attention that students with disabilities require will be to the detriment of the other students.	561	2.3	.88
6.Inclusion offers mixed group interaction which will foster understanding and acceptance of difference	561	3.1	.62
7*. It is difficult to maintain order in a regular classroom that contains a student with disability.	561	2.8	.74
8. Regular teachers possess a great deal of expertise necessary to work with students with disabilities	561	3.1	.70
9*. The behavior of students with disabilities will set a bad example for other students.	561	2.7	.72
10. Isolation in a special class has negative effect on social and emotional development of the SwDs	561	2.6	.72
11*. SwDs will probably develop academic skills more rapidly in a special class than in regular class	561	2.1	.71
12*. Most students with disabilities do not make adequate attempt to complete their assignments	561	2.5	.74
13. Inclusion of SwDs will require significant changes in the regular classroom procedures	561	3.1	.61
14. Most students with disabilities are well behaved in the classroom	561	2.6	.68
15*. The contact regular students have with included students with disabilities may be harmful	559	2.9	.64
16. Regular teachers have sufficient training to teach students with disabilities.	561	3.0	.69
17*. Students with disabilities will monopolize the teachers' time	561	2.8	.66
18. Inclusion will promote the students with disabilities' social independence	561	2.9	.57
19*. It is likely that a student with disability will exhibit behaviour problems in regular classroom setting	561	2.4	.61
20*. Diagnostic/prescriptive teaching is better done by resource/special teachers than regular teachers	560	1.9	.66
21. The inclusion of students with disabilities can be beneficial for regular students	561	2.3	.70
22*. Students with disabilities need to be told exactly what to do and how to do it.	561	2.0	.57
23*. Inclusion is likely to have a negative effect on emotional development of the students with disabilities	561	2.8	.63
24*. Increased freedom in the classroom creates too much confusion	561	2.6	.66
25*. The students with disabilities will be socially isolated by regular classroom students	560	3.0	.61
26. Inclusion of students with disabilities will necessitate extensive re-training of regular teachers	561	3.1	.60
27. SwDs should be given every opportunity to function in the regular classroom setting where possible	560	3.2	.53
28*. Inclusion of students with disabilities creates confusion in regular classroom	560	2.8	.64
29. The presence of SwDs will promote acceptance of differences on the part of regular students	561	3.1	.55
Valid N (listwise)	554		

a. (*) reversed items
SwDs: Students with disabilities

Appendix 3: Item-total statistics of the overall attitude scale

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
ATMS1	57.94	40.130	.158	.179	.787
ATMS4	57.41	38.011	.391	.279	.774
ATMS6	57.02	39.607	.260	.255	.781
ATMS10	57.51	39.795	.183	.158	.786
ATMS14	57.50	38.797	.325	.223	.778
ATMS18	57.16	39.472	.305	.264	.779
ATMS21	57.77	38.537	.342	.183	.777
ATMS27	56.87	40.922	.116	.256	.787
ATMS29	57.00	39.212	.361	.321	.776
ATMS2	58.13	39.922	.162	.195	.788
ATMS5	57.73	38.524	.247	.185	.784
ATMS7	57.25	37.012	.489	.339	.767
ATMS9	57.43	37.033	.506	.391	.767
ATMS11	57.98	38.598	.324	.244	.778
ATMS12	57.56	38.052	.372	.212	.775
ATMS15	57.17	38.534	.386	.241	.774
ATMS17	57.33	38.428	.381	.240	.775
ATMS19	57.64	38.376	.428	.307	.773
ATMS20	58.16	39.438	.254	.189	.782
ATMS23	57.32	38.866	.347	.218	.777
ATMS24	57.51	38.163	.419	.283	.773
ATMS25	57.12	39.045	.339	.271	.777
ATMS28	57.28	37.723	.492	.383	.769



f

Appendix 4: Analysis of sub-scales

*4.1. **General philosophy of inclusive education***

(Cronbach's Alpha .607, N = 8)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
ATMS6	20,15	5,053	,307	,574
ATMS15	20,31	4,953	,321	,570
ATMS18	20,30	4,961	,388	,552
ATMS21	20,90	5,129	,206	,609
ATMS23	20,46	5,195	,236	,596
ATMS25	20,25	5,049	,313	,572
ATMS27	20,00	5,324	,271	,585
ATMS29	20,14	4,895	,444	,538

4.2. Perceived ability to teach students with disabilities

(Cronbach's Alpha .695, N = 4)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
ATMS scale 13	9.20	2.390	.417	.667
ATMS scale 16	9.23	2.040	.531	.595
ATMS scale 26	9.16	2.317	.480	.631
ATMS scale 8	9.17	2.067	.492	.623

4.3. Classroom behaviour of students with disabilities

(Cronbach's Alpha .670, N = 5)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
V39-ATMS scale 14	10.74	3.896	.231	.701
ATMS scale 7- V32s	10.49	3.173	.472	.595
ATMS scale 9- V34s	10.67	3.117	.528	.567
ATMS scale 19-V44s	10.88	3.560	.447	.610
ATMS scale 28-V53s	10.52	3.474	.458	.604

Appendices 5: Mean score comparison of the overall scale by age and experience

5.1. By age

Mean scores of teachers' attitudes by age

Vietnamese lower secondary teacher attitudes towards inclusive education scale

Age in groups	Mean	N	Std. Deviation
22-25	60.38	34	5.652
26-35	60.04	171	5.242
36-45	60.30	171	7.311
46-55	59.82	180	6.937
over 56	55.60	5	2.608
Total	60.03	561	6.488

5.2. By general teaching experience

Mean score of teachers' attitudes by teaching experiences

Vietnamese lower secondary teacher attitudes towards inclusive education scale

General teaching	Mean	N	Std. Deviation
1- 5	60.90	62	5.847
6-13	59.84	160	5.736
14-22	59.92	126	6.849
23-30	59.85	181	7.055
over 31	60.69	32	6.626
Total	60.03	561	6.488

Appendix 6: Analysis of teachers' experience with students with disabilities

6.1. Teacher's experience across regions

Region * Experience working with students with disabilities Crosstabulation

Count

		Experience working with students with disabilities						
		1 year	2 years	3 years	4-8 years	9-14	morethan 20yrs	Total
Region	south	44	17	18	28	24	0	131
	central	84	45	8	25	0	2	164
	north	51	114	83	15	2	0	265
Total		179	176	109	68	26	2	560

6.2. Mann-Whitney test for teachers' attitudes and their experience

Test Statistics[a]

	Vietnamese lower secondary teacher attitudes towards inclusive education scale
Mann-Whitney U	18792,500
Wilcoxon W	126672,500
Z	-2,415
Asymp. Sig. (2-tailed)	,016

a. Grouping Variable: Experience before and after project

Ranks

	Experience before	N	Mean Rank	Sum of Ranks
Vietnamese lower secondary teacher attitudes towards inclusive education scale	SNE experience within project time	464	273,00	126672,50
	SNE experience before project	96	316,74	30407,50
	Total	560		

6.3. Mean score comparisons of training contents received by teachers

Appendix 7: Analysis relating to student -related variables

7.1. Teacher's attitudes and number of disabilities teachers exposed to

ANOVA

Vietnamese lower secondary teacher attitudes towards inclusive education scale

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	269.906	2	134.953	3.227	.040
Within Groups	23294.792	557	41.822		
Total	23564.698	559			

Multiple Comparisons

Dependent Variable: Vietnamese lower secondary teacher attitudes towards inclusive education scale

Hochberg

(I) NOofimpairments	(J) NOofimpairments	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1impairment	2impairments	1.062	.633	.257	-.46	2.58
	from 3-5 impairments	1.691	.718	.056	-.03	3.41
2impairments	1impairment	-1.062	.633	.257	-2.58	.46
	from 3-5 impairments	.629	.787	.809	-1.25	2.51
from 3-5 impairments	1impairment	-1.691	.718	.056	-3.41	.03
	2impairments	-.629	.787	.809	-2.51	1.25

7.2. Mann-Whitney U test for attitudes towards inclusion of students with visual impairments

Test Statistics[a]

	Vietnamese lower secondary teacher attitudes towards inclusive education scale
Mann-Whitney U	29550.000
Wilcoxon W	105016.000
Z	-2.165
Asymp. Sig. (2-tailed)	.030

a. Grouping Variable: Visual Impairment

Ranks

	Visual Impairment	N	Mean Rank	Sum of Ranks
Vietnamese lower secondary teacher attitudes towards inclusive education scale	Have	172	302.70	52064.00
	Do not have	388	270.66	105016.00
	Total	560		

j

7.3. Mann-Whitney U test for attitudes towards inclusion of students with hearing impairments

Test Statistics[a]

	Vietnamese lower secondary teacher attitudes towards inclusive education scale
Mann-Whitney U	17515.500
Wilcoxon W	21610.500
Z	-2.588
Asymp. Sig. (2-tailed)	.010

a. Grouping Variable: Hearing impairment

Ranks

	Hearing impairment	N	Mean Rank	Sum of Ranks
Vietnamese lower secondary teacher attitudes towards inclusive education scale	Have	90	240.12	21610.50
	Do not have	470	288.23	135469.50
	Total	560		

7.4. Mann-Whitney U test for attitudes towards inclusion of students with intellectual disabilities

Test Statistics[a]

	Vietnamese lower secondary teacher attitudes towards IE scale
Mann-Whitney U	28942.500
Wilcoxon W	84887.500
Z	-4.691
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Intelectual disability

Ranks

	Intelectual disability	N	Mean Rank	Sum of Ranks
Vietnamese lower secondary teacher attitudes towards inclusive education scale	Have	334	254.15	84887.50
	Do not have	226	319.44	72192.50
	Total	560		

Appendix 8: Analysis for the environment-related variable

Appendix 8.1: Kruskal Wallis test for teachers' attitudes across the regions

Test Statistics[a,b]

	Vietnamese lower secondary teacher attitudes towards IE scale
Chi-Square	40.431
df	2
Asymp. Sig.	.000

a. Kruskal Wallis Test

b. Grouping Variable: Region

Report

Vietnamese lower secondary teacher attitudes towards inclusive education scale

Region	Mean	N	Std. Deviation
South	62.74	131	5.252
Central	59.68	164	6.377
North	58.91	266	6.742
Total	60.03	561	6.488

Appendix 8.2: One-Way Anova for teachers' attitudes in different settings

ANOVA

Vietnamese lower secondary teacher attitudes towards inclusive education scale

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	842.642	3	280.881	6.883	.000
Within Groups	22730.901	557	40.810		
Total	23573.544	560			

Descriptives

Vietnamese lower secondary teacher attitudes towards inclusive education scale

	N	Mean	SD	95% Confidence Interval for Mean		Minimum	Maximum
				Lower Bound	Upper Bound		
Urban	91	62.75	5.217	61.66	63.83	49	75
Suburban	171	59.33	6.949	58.28	60.38	41	81
Town	147	59.93	6.545	58.87	61.00	44	81
Rural	152	59.28	6.207	58.28	60.27	37	76
Total	561	60.03	6.488	59.49	60.57	37	81

Appendix 9: Analysis of support factors

Appendix 9.1: Support scale

Descriptive Statistics

	Mean	Std. Deviation	N
Administration support	1.87	1.321	561
Additional support	2.09	1.293	559

Correlations

		Administration	Additional support
Administration support	Pearson Correlation	1	.620
	Sig. (2-tailed)		.000
	N	561	559
Additional support	Pearson Correlation	.620	1
	Sig. (2-tailed)	.000	
	N	559	559

Appendix 9.2: Pearson Correlation between teacher attitude and support

Descriptive Statistics

	Mean	Std. Deviation	N
Overall scale	60.03	6.488	561
Total support scale	3.95	2.341	559

Correlations

		Overall scale	Support scale
Overall scale	Pearson Correlation	1	.084
	Sig. (2-tailed)		.046
	N	561	559
Total support scale	Pearson Correlation	.084	1
	Sig. (2-tailed)	.046	
	N	559	559

Appendix 9.3: Pearson Correlation between teacher attitudes and parental participation

Descriptive Statistics

	Mean	Std. Deviation	N
Parental participation	2.94	1.323	559
Teacher attitudes scale	60.03	6.488	561

Correlations

		Parental participation	Overall scale
Parental participation	Pearson Correlation	1	.160**
	Sig. (2-tailed)		.000
	N	559	559
Overall sclae	Pearson Correlation	.160**	1
	Sig. (2-tailed)	.000	
	N	559	561

**. Correlation is significant at the 0.01 level (2-tailed).

Appendix 10: Six study fields in the Map of Vietnam

(Note: F = Field)

n

Appendix 11: Introduction letter from the University of Oslo

UNIVERSITY OF OSLO

Department of Special Needs Education

P.O.Box 1140, Blindern
N-0318 Oslo
NORWAY

Your ref:
Our ref: 21/07 ST/dh
Contact person: Denise Brittain d.a.brittain@isp.uio.no

Visiting address:
Helga Eng's Building
3rd and 4th floor

Date: June 5, 2007

Telephone: + 47 22 85 80 59
Telefax: + 47 22 85 80 21

FACULTY OF EDUCATION

TO WHOM IT MAY CONCERN:

This is to certify that **PHAM, Huong Thi Mai**, date of birth 26.06.1980, is a full time student pursuing a course of study at the Department of Special Needs Education at the University of Oslo, Norway, leading to the degree of Master of Philosophy in Special Needs Education (M. Phil. SNE).

This is a continuous two-year programme run on the "sandwich" principle, which involves periods of study and field work/research in both Norway and the home country. The student has concluded the initial 11-month period in Norway and will be returning to the home country in July 2007 to continue full-time studies/research until 1 January 2008 when s/he returns to Norway for the final part of the degree. The period of study will be completed at the end of May 2008.

The main responsibility for supervising the research, developmental work and thesis remains with the Department of Special Needs Education, University of Oslo, Norway. However, we would kindly request that the relevant authorities give the student the access required to the schools and educational establishments necessary in order to undertake field work and research. We would also be most grateful for any assistance that is afforded to the student which enables her/him to carry out this work, particularly the use of facilities such as access to telephone, fax, e-mail, computer services and libraries at the various educational establishments.

Yours sincerely

Ass. Professor Steinar Theie
Academic Head of International Master's Programme
Department of Special Needs Education

Department of Special Needs Education
Faculty of Education